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Cys Cys Trp Met Arg Leu Arg Ser Glu Arg Leu Ser Ser Ala Leu Ala
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<212> PRT

<213> Homo sapiens

<400> 3988

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Ala	Arg	Ala	Leu	Ala	Gln	Gly	Pro	Lys	Thr	Val	Asp	Val	Pro	Ala	Ser
Leu	Pro	Thr	Pro	Pro	His	Asn	Asn	Gln	Glu	Glu	Leu	Arg	Ile	Gln	Asp
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3157

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<210> 3989

<211> 4522

<212> DNA

<213> Homo sapiens

<400> 3989

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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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 35           40           45
Ser Arg Ser Arg Ser Tyr Ser Pro Ala His Asn Arg Glu Arg Asn His
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Pro Arg Val Tyr Gln Asn Arg Asp Phe Arg Gly His Asn Arg Gly Tyr
 65           70           75           80
Arg Arg Pro Tyr Tyr Phe Arg Gly Arg Asn Arg Gly Phe Tyr Pro Trp
 85           90           95
Gly Gln Tyr Asn Arg Gly Gly Tyr Gly Asn Tyr Arg Ser Asn Trp Gln
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Asn Tyr Arg Gln Ala Tyr Ser Pro Arg Arg Gly Arg Ser Arg Ser Arg
 115          120          125
Ser Pro Lys Arg Arg Ser Pro Ser Pro Arg Ser Arg Ser His Ser Arg
 130          135          140
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 145          150          155          160
Arg Ser Ser Ser Asn His Ser Arg Val Glu Ser Ser Lys Arg Lys Ser
 165          170          175
Ala Lys Glu Lys Lys Ser Ser Ser Lys Asp Ser Arg Pro Ser Gln Ala
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 210          215          220
Asp Ala Thr Tyr Gly Thr Gly Ser Ala Ser Arg Ala Ser Ala Val Ser
 225          230          235          240
Glu Leu Ser Pro Arg Glu Arg Ser Pro Ala Leu Lys Ser Pro Leu Gln
 245          250          255
Ser Val Val Val Arg Arg Arg Ser Pro Arg Pro Ser Pro Val Pro Lys
 260          265          270
Pro Ser Pro Pro Leu Ser Ser Thr Ser Gln Met Gly Ser Thr Leu Pro
 275          280          285
Ser Gly Ala Gly Tyr Gln Ser Gly Thr His Gln Gly Gln Phe Asp His
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 Gln Asp Lys Asp Lys Ala Lys Gly Arg Lys Glu Ser Glu Phe Asp Asp
 435 440 445
 Glu Pro Lys Phe Met Ser Lys Val Ile Gly Ala Asn Lys Asn Gln Glu
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 Glu Glu Lys Ser Gly Lys Trp Glu Gly Leu Val Tyr Ala Pro Pro Gly
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 725 730 735
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 740 745 750
 Ser Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys
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 Gln Ser Ser His Ser Tyr Lys Ala Glu Glu Tyr Thr Glu Glu Thr Glu

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      820          825          830
Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr
      835          840          845
Ser Gly Asn Asn Asn Asn Asn Ser Asn Asn Asp Phe Gln Lys Arg Asn
      850          855          860
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      865          870          875          880
Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser
      885          890          895
Arg Gly Arg Gly Arg Gly Ala Phe Pro Arg Gly Arg Gly Arg Phe Met
      900          905          910
Phe Arg Lys Ser Ser Thr Ser Pro Lys Trp Ala His Asp Lys Phe Ser
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<210> 3991

<211> 381

<212> DNA

<213> Homo sapiens

<400> 3991

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<210> 3992

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20          25          30
Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
      50              55              60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
      65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
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<212> DNA

<213> Homo sapiens

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<210> 3994

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<213> Homo sapiens

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      20          25          30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35          40          45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
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Val Ala Asn Gly Ala His Val Glu
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<210> 3995

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<210> 3996
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 3996
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 Ser Leu Gln Glu Ala Gln Arg Gly Arg Ala Ala Ser His Ser Arg Ala
 65 70 75 80
 Leu Thr Leu Pro Ser Ala Leu His Phe Ala Ser Ser Leu Leu Thr
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 115 120 125
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His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
 50           55           60
Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
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Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
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Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
100           105           110
Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
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Lys Ile Gly His Val Ala Leu Arg Leu Ile Arg Ile Pro Leu Ala Arg
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His Ala Phe Glu Glu Gly Leu Arg Cys Asn Pro Asp His Trp Pro Cys
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Lys Gly Leu Val Leu Lys Glu Lys Ile Phe Glu Glu Gln Pro Cys Leu
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 2115 2120 2125
 Leu Pro Asn Met Pro Lys Leu Val Ile Pro Ser Ala Ala Thr Lys Phe
 2130 2135 2140
 Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro

2145		2150		2155		2160
Lys Gly Ser Ile Ser Glu Glu Thr Lys Gln Lys Leu Lys Ser Ala Ile						
		2165		2170		2175
Leu Ser Ala Gln Ser Ala Ala Asn Val Arg Lys Glu Ser Leu Cys Gln						
		2180		2185		2190
Pro Ala Leu Glu Val Leu Glu Thr Ser Ser Gln Glu Ser Ser Leu Glu						
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<210> 4000

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala Ala Phe Val Val Val
35      40      45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
50      55      60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
65      70      75      80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
85      90      95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100     105     110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115     120     125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130     135     140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145     150     155     160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165     170     175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
180     185     190
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
195     200     205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
210     215     220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
225     230     235     240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
245     250     255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
260     265     270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
275     280     285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
290     295     300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
305     310     315     320
Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
325     330     335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
340     345     350
Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355     360     365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370     375     380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
385     390     395     400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
405     410     415
Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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          420          425          430
Glu Glu Glu Ala Val Glu Lys Thr His Ser Thr Thr Ser Gln Ala Ile
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          450          455          460
Ser Gln Arg Tyr Ala Lys Val Pro Leu Phe Ser Pro Asn Phe Ser Glu
465          470          475          480
Lys Val Gly Val Ala Phe Asp His Met Lys Val Cys Phe Gly Asp Phe
          485          490          495
Pro Thr Met Pro Lys Leu Ile Pro Pro Thr Glu Ser Pro Val Cys Trp
          500          505          510
Arg His Arg Gly Asp Gly Gly Ala Gln Gly Glu Ala Gly Ala Ala Ala
          515          520          525
Gly Ala Gly Gly Pro Pro Val Gln Gly Ala Gly Arg Arg Pro Gly Gly
          530          535          540
Trp Gly Ala Ser Ala Glu Ala Gly Pro His Arg Gly Ala Thr Gly Gln
545          550          555          560
Glu Gly Gln Ser Pro Val Lys Ile Trp Glu Thr Leu Asn Ser Glu Gly
          565          570          575
Cys Val Ser Ser Ala Pro Arg Thr His Pro Tyr Leu Pro Ser Leu Leu
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Val Glu Ala Glu Glu His Gly Pro Pro Gly Gly Ser Ser Gly
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<210> 4001

<211> 1251

<212> DNA

<213> Homo sapiens

<400> 4001

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660
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720

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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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		20					25					30			
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35				40						45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
	50				55					60					
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65				70				75					80		
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
			85					90					95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
		100					105					110			
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
	115				120						125				
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130				135						140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145				150				155						160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
		165					170						175		
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
		180					185					190			
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
	195				200							205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004

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Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
           35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
           50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
           85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
           100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
           115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
           130          135          140
Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
145          150          155          160

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<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

<400> 4005

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120
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420
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480
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666

<210> 4006
<211> 222
<212> PRT
<213> Homo sapiens

<400> 4006
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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
195 200 205
Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
210 215 220

<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

<400> 4007
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1920

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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			20					25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
		35				40						45			
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
		50				55					60				
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
65					70					75				80	
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85						90					95	
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
			115				120					125			
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
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Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
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Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165					170						175	
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
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Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
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Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
					210		215				220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225					230					235					240
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245							250					255
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

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 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
 275 280 285
 Tyr Asp
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 <211> 675
 <212> DNA
 <213> Homo sapiens

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 tcagaaagaac cagtagttta taatccaaca acagctgcctt tcactctgtga ctcaattgtg
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 aatgaaaaaa ccataggcag tcctcctaata gagttttact gttctgaaaa cacttctgtc
 240
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 360
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 420
 atcacggagg aaactgaata ccttattctt actctcctga gattttcata tgatcagaag
 480
 tatcatgtga gaagggaaaat tttagacaaat gtatcactgc cactgggttt ggagttgcc
 540
 gttaaaagaa ttacttcttt ctcttcattg tcagaaagtt ggtctgtaga tgttgacttc
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 675

 <210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens

 <400> 4010
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 20 25 30
 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

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      85              90              95
Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp Leu Leu Asn Tyr Phe
      100              105              110
Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln Tyr Tyr Cys Glu Asn
      115              120              125
Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met Gln Ile Thr Glu Glu
      130              135              140
Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe Ser Tyr Asp Gln Lys
      145              150              155
Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val Ser Leu Pro Leu Val
      165              170              175
Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe Ser Ser Leu Ser Glu
      180              185              190
Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu Ser Glu Asn Leu Ala
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Lys Lys Leu Lys Pro Ser Gly Thr Asp Glu Ala Ser Cys Thr Lys Leu
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Val
225

<210> 4011
<211> 1371
<212> DNA
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720
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840

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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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			20					25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
			35				40					45			
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
			50			55					60				
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65				70					75					80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
				85					90					95	
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
			100					105					110		
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
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Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
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Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
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Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
			165						170					175	
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
			180					185					190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
		195					200					205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
		210					215					220			
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly


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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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20           25           30
Thr Pro Ala Leu Gln Pro Leu Ser Arg Ala Ser Pro Ile Pro Gly Thr
35           40           45
Pro Asp Arg Leu Pro Cys Gln Gln Leu Leu Gln Gln Ala Gln Ala Ala
50           55           60
Ile Pro Arg Ser Thr Ser Phe Asp Arg Lys Leu Pro Asp Gly Thr Arg
65           70           75           80
Ser Ser Pro Ser Asn Gln Ser Ser Ser Ser Asp Pro Gly Pro Gly Gly
85           90           95
Ser Gly Pro Trp Arg Pro Gln Val Gly Tyr Asp Gly Cys Gln Ser Pro
100          105          110
Leu Leu Leu Glu His Gln Gly Ser Gly Pro Leu Glu Cys Asp Gly Ala
115          120          125
Arg Glu Arg Glu Asp Thr Met Glu Ala Ser Arg His Pro Glu Thr Lys
130          135          140
Trp His Gly Pro Pro Ser Lys Val Leu Gly Ser Tyr Lys Glu Arg Ala
145          150          155          160
Leu Gln Lys Asp Gly Ser Cys Lys Asp Ser Pro Asn Lys Leu Ser His

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165 170 175
 Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser
 180 185 190
 Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
 195 200 205
 Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
 210 215 220
 Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
 225 230 235 240
 Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
 245 250 255
 Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
 260 265 270
 Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
 275 280 285
 Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
 290 295 300
 Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
 305 310 315 320
 Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
 325 330 335
 Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
 340 345 350
 Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
 355 360 365
 Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
 370 375 380
 Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
 385 390 395 400
 Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
 405 410 415
 Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys
 420 425 430
 Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
 435 440 445
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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ccccgcggagg tgcggggcga gccacgcgac aggagccgcg aggactgagg gcggatatacg
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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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Asn Arg Arg Met Lys Trp Lys Lys Ile Val Leu Gln Gly Gly Gly Leu
35 40 45
Glu Ser Pro Thr Lys Pro Lys Gly Arg Pro Lys Lys Asn Ser Ile Pro
50 55 60
Thr Ser Glu Gln Leu Thr Glu Gln Glu Arg Ala Lys Asp Ala Glu Lys
65 70 75 80
Pro Ala Glu Val Pro Gly Glu Pro Ser Asp Arg Ser Arg Glu Asp
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<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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180
acgtgcttcc tcgccctgct gttcttattc tccatcctcc ggaaggtggc ctgggactat
240

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<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

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<210> 4020

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4020

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Ser	Tyr	Val	Leu	Pro	Arg	Lys	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser
			20					25				30			
Leu	Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys
		35				40					45				
Leu	Tyr	Ala	Ile	Arg	Thr	Gln	Glu	Tyr	Ser	Ile	Phe	Ala	Pro	Leu	Ser
	50				55					60					
Arg	Met	Glu	Ala	Glu	Ile	Val	Gln	Gln	Gln	Ala	Pro	Pro	Ser	Tyr	Gly

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      85          90          95
Glu Asn Pro Asn Asp Asn Ser Val Leu Gly Asn Leu Arg Ser Leu Leu
      100          105          110
Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly Gly Pro Gly Ala Arg
      115          120          125
Arg Arg Gln Arg Gly Arg Leu Met Arg Arg Leu Val Arg Arg Leu Arg
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 4980
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 5040
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 5160
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
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<210> 4024
 <211> 1690
 <212> PRT
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<400> 4024
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Ile Gly Gln Thr	Asp Asn Ile Ile	Tyr Val Tyr Lys Ile Gly	Glu Asp
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Trp Gly Asp Lys	Lys Val Ile Cys Asn Lys Phe	Ile Gln Thr Ser Ala	
	35	40	45
Val Thr Cys Leu	Gln Trp Pro Ala Glu Tyr Ile	Ile Val Phe Gly Leu	
	50	55	60
Ala Glu Gly Lys	Val Arg Leu Ala Asn Thr Lys	Thr Asn Lys Ser Ser	
	65	70	75
Thr Ile Tyr Gly	Thr Glu Ser Tyr Val Val Ser Leu	Thr Thr Asn Cys	
	85	90	95
Ser Gly Lys Gly	Ile Leu Ser Gly His Ala Asp Gly	Thr Ile Val Arg	
	100	105	110
Tyr Phe Phe Asp	Asp Glu Gly Ser Gly Glu Ser Gln	Gly Lys Leu Val	
	115	120	125
Asn His Pro Cys	Pro Pro Tyr Ala Leu Ala Trp Ala	Thr Asn Ser Ile	
	130	135	140
Val Ala Ala Gly	Cys Asp Arg Lys Ile Val Ala Tyr	Gly Lys Glu Gly	
	145	150	155
His Met Leu Gln	Thr Phe Asp Tyr Ser Arg Asp Pro	Gln Glu Arg Glu	
	165	170	175
Phe Thr Thr Ala	Val Ser Ser Pro Gly Gly Gln Ser	Val Val Leu Gly	
	180	185	190
Ser Tyr Asp Arg	Leu Arg Val Phe Asn Trp Ile Pro	Arg Arg Ser Ile	
	195	200	205
Trp Glu Glu Ala	Lys Pro Lys Glu Ile Thr Asn Leu	Tyr Thr Ile Thr	
	210	215	220
Ala Leu Ala Trp	Lys Arg Asp Gly Ser Arg Leu Cys	Val Gly Thr Leu	
	225	230	235
Cys Gly Gly Val	Glu Gln Phe Asp Cys Cys Leu Arg	Arg Ser Ile Tyr	
	245	250	255
Lys Asn Lys Phe	Glu Leu Thr Tyr Val Gly Pro Ser	Gln Val Ile Val	
	260	265	270
Lys Asn Leu Ser	Ser Gly Thr Arg Val Val Leu Lys	Ser His Tyr Gly	
	275	280	285
Tyr Glu Val Glu	Glu Val Lys Ile Leu Gly Lys Glu	Arg Tyr Leu Val	
	290	295	300
Ala His Thr Ser	Glu Thr Leu Leu Leu Gly Asp Leu	Asn Thr Asn Arg	
	305	310	315
Leu Ser Glu Ile	Ala Trp Gln Gly Ser Gly Gly Asn	Glu Lys Tyr Phe	
	325	330	335
Phe Glu Asn Glu	Asn Val Cys Met Ile Phe Asn Ala	Gly Glu Leu Thr	
	340	345	350
Leu Val Glu Tyr	Gly Asn Asn Asp Thr Leu Gly Ser	Val Arg Thr Glu	
	355	360	365
Phe Met Asn Pro	His Leu Ile Ser Val Arg Ile Asn	Glu Arg Cys Gln	
	370	375	380
Arg Gly Thr Glu	Asp Asn Lys Lys Leu Ala Tyr Leu	Ile Asp Ile Lys	
	385	390	395
Thr Ile Ala Ile	Val Asp Leu Ile Gly Gly Tyr Asn	Ile Gly Thr Val	
	405	410	415
Ser His Glu Ser	Arg Val Asp Trp Leu Glu Leu Asn	Glu Thr Gly His	
	420	425	430
Lys Leu Leu Phe	Arg Asp Arg Lys Leu Arg Leu His	Leu Tyr Asp Ile	

435										440										445										
Glu	Ser	Cys	Ser	Lys	Thr	Met	Ile	Leu	Asn	Phe	Cys	Ser	Tyr	Met	Gln															
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Trp	Val	Pro	Gly	Ser	Asp	Val	Leu	Val	Ala	Gln	Asn	Arg	Asn	Ser	Leu															
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Cys	Val	Trp	Tyr	Asn	Ile	Glu	Ala	Pro	Glu	Arg	Val	Thr	Met	Phe	Thr															
				485					490					495																
Ile	Arg	Gly	Asp	Val	Ile	Gly	Leu	Glu	Arg	Gly	Gly	Gly	Lys	Thr	Glu															
			500				505						510																	
Val	Met	Val	Met	Glu	Gly	Val	Thr	Val	Ala	Tyr	Thr	Leu	Asp	Glu																
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530						535					540																			
Ala	Thr	Ala	Phe	Leu	Glu	Thr	Leu	Glu	Met	Thr	Pro	Glu	Thr	Glu	Ala															
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Met	Trp	Lys	Thr	Leu	Ser	Lys	Leu	Ala	Leu	Glu	Ala	Arg	Gln	Leu	His															
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Ile	Ala	Glu	Arg	Cys	Phe	Ser	Ala	Leu	Gly	Gln	Val	Ala	Lys	Ala	Arg															
		580				585						590																		
Phe	Leu	His	Glu	Thr	Asn	Glu	Ile	Ala	Asp	Gln	Val	Ser	Arg	Glu	Tyr															
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Gly	Gly	Glu	Gly	Thr	Asp	Phe	Tyr	Gln	Val	Arg	Ala	Arg	Leu	Ala	Met															
		610			615					620																				
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Ala	Val	Glu	Glu	Ala	Met	Gly	Met	Tyr	Gln	Glu	Leu	His	Arg	Trp	Asp															
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Glu	Cys	Ile	Ala	Val	Ala	Glu	Ala	Lys	Gly	His	Pro	Ala	Leu	Glu	Lys															
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Leu	Arg	Arg	Ser	Tyr	Tyr	Gln	Trp	Leu	Met	Asp	Thr	Gln	Gln	Glu	Glu															
		675				680					685																			
Arg	Ala	Gly	Glu	Leu	Gln	Glu	Ser	Gln	Gly	Asp	Gly	Leu	Ala	Ala	Ile															
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Ser	Leu	Tyr	Leu	Lys	Ala	Gly	Leu	Pro	Ala	Lys	Ala	Ala	Arg	Leu	Val															
				710						715				720																
Leu	Thr	Arg	Glu	Glu	Leu	Leu	Ala	Asn	Thr	Glu	Leu	Val	Glu	His	Ile															
				725				730						735																
Thr	Ala	Ala	Leu	Ile	Lys	Gly	Glu	Leu	Tyr	Glu	Arg	Ala	Gly	Asp	Leu															
			740			745						750																		
Phe	Glu	Lys	Ile	His	Asn	Pro	Gln	Lys	Ala	Leu	Glu	Cys	Tyr	Arg	Lys															
		755			760						765																			
Gly	Asn	Ala	Phe	Met	Lys	Ala	Val	Glu	Leu	Ala	Arg	Leu	Ala	Phe	Pro															
		770			775					780																				
Val	Glu	Val	Val	Lys	Leu	Glu	Glu	Ala	Trp	Gly	Asp	His	Leu	Val	Gln															
785					790					795				800																
Gln	Lys	Gln	Leu	Asp	Ala	Ala	Ile	Asn	His	Tyr	Ile	Glu	Ala	Arg	Cys															
				805				810					815																	
Ser	Ile	Lys	Ala	Ile	Glu	Ala	Ala	Leu	Gly	Ala	Arg	Gln	Trp	Lys	Lys															
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Ala	Ile	Tyr	Ile	Leu	Asp	Leu	Gln	Asp	Arg	Asn	Thr	Ala	Ser	Lys	Tyr															
		835			840							845																		
Tyr	Pro	Leu	Val	Ala	Gln	His	Tyr	Ala	Ser	Leu	Gln	Glu	Tyr	Glu	Ile															
		850			855					860																				
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865					870					875					880
Met	Tyr	Thr	Gln	Ala	Gly	Arg	Trp	Glu	Gln	Ala	His	Lys	Leu	Ala	Met
				885					890						895
Lys	Cys	Met	Arg	Pro	Glu	Asp	Val	Ser	Val	Leu	Tyr	Ile	Thr	Gln	Ala
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Gln	Glu	Met	Glu	Lys	Gln	Gly	Lys	Tyr	Arg	Glu	Ala	Glu	Arg	Leu	Tyr
		915					920					925			
Val	Thr	Val	Gln	Glu	Pro	Asp	Leu	Ala	Ile	Thr	Met	Tyr	Lys	Lys	His
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Lys	Leu	Tyr	Asp	Asp	Met	Ile	Arg	Leu	Val	Gly	Lys	His	His	Pro	Asp
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Leu	Leu	Ser	Asp	Thr	His	Leu	His	Leu	Gly	Lys	Glu	Leu	Gln	Ala	Glu
				965					970					975	
Gly	Arg	Leu	Gln	Glu	Ala	Glu	Tyr	His	Tyr	Leu	Glu	Ala	Gln	Glu	Trp
				980					985				990		
Lys	Ala	Thr	Val	Asn	Met	Tyr	Arg	Ala	Ser	Gly	Leu	Trp	Glu	Glu	Ala
		995					1000					1005			
Tyr	Arg	Val	Ala	Arg	Thr	Gln	Gly	Gly	Ala	Asn	Ala	His	Lys	His	Val
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Ala	Tyr	Leu	Trp	Ala	Lys	Ser	Leu	Gly	Gly	Glu	Ala	Ala	Val	Arg	Leu
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Leu	Asn	Lys	Leu	Gly	Leu	Leu	Glu	Ala	Ala	Val	Asp	His	Ala	Ala	Asp
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Asn	Cys	Ser	Phe	Glu	Phe	Ala	Phe	Glu	Leu	Ser	Arg	Leu	Ala	Leu	Lys
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His	Lys	Thr	Pro	Glu	Val	His	Leu	Lys	Tyr	Ala	Met	Phe	Leu	Glu	Asp
		1075					1080					1085			
Glu	Gly	Lys	Phe	Glu	Glu	Ala	Glu	Ala	Glu	Phe	Ile	Arg	Ala	Gly	Lys
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Pro	Lys	Glu	Ala	Val	Leu	Met	Phe	Val	His	Asn	Gln	Asp	Trp	Glu	Ala
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Ala	Gln	Arg	Val	Ala	Glu	Ala	His	Asp	Pro	Asp	Ser	Val	Ala	Glu	Val
				1125					1130					1135	
Leu	Val	Gly	Gln	Ala	Arg	Gly	Ala	Leu	Glu	Glu	Lys	Asp	Phe	Gln	Lys
				1140				1145					1150		
Ala	Glu	Gly	Leu	Leu	Leu	Arg	Ala	Gln	Arg	Pro	Gly	Leu	Ala	Leu	Asn
		1155					1160					1165			
Tyr	Tyr	Lys	Glu	Ala	Gly	Leu	Trp	Ser	Asp	Ala	Leu	Arg	Ile	Cys	Lys
		1170				1175					1180				
Asp	Tyr	Val	Pro	Ser	Gln	Leu	Glu	Ala	Leu	Gln	Glu	Glu	Tyr	Glu	Arg
1185					1190					1195					1200
Glu	Ala	Thr	Lys	Lys	Gly	Ala	Arg	Gly	Val	Glu	Gly	Phe	Val	Glu	Gln
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Ala	Arg	His	Trp	Glu	Gln	Ala	Gly	Glu							

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 Arg Val Ala Lys Glu Leu Asp Pro Arg Tyr Glu Asp Tyr Val Asp Gln
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 His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val
 1330 1335 1340
 Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln
 1345 1350 1355 1360
 Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu
 1365 1370 1375
 His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser
 1380 1385 1390
 Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn
 1395 1400 1405
 Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser
 1410 1415 1420
 Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu
 1425 1430 1435 1440
 Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Val
 1445 1450 1455
 Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe
 1460 1465 1470
 Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala
 1475 1480 1485
 Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser
 1490 1495 1500
 Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu
 1505 1510 1515 1520
 Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile
 1525 1530 1535
 Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr
 1540 1545 1550
 Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe
 1555 1560 1565
 Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu
 1570 1575 1580
 Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu
 1585 1590 1595 1600
 Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val
 1605 1610 1615
 Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr
 1620 1625 1630
 Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala
 1635 1640 1645
 Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His
 1650 1655 1660
 Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly
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<210> 4025

<211> 908

<212> DNA

<213> Homo sapiens

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 120
 aaccagtgtt ttcacgtttt ccgcaccagt tgtaacctta aaagccacaa gaggattcac
 180
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 240
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 300
 aaaaccttta tgtataatc atcccttatt caacatctga gaactcatac tggagagaaa
 360
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 420
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 480
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 540
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 600
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 660
 gagnagcaga aaattcacca agaagagaaa gcttattggt gtaatcagtgt tggtagggct
 720
 ttccagggca gctcagacct catcggacat caggttaact atacaggaga gaaaccatat
 780
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga
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 tcagatct
 908

<210> 4026
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4026
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 20 25 30
 Thr Gly Glu Lys Pro Tyr Glu Cys Asn Gln Cys Phe His Val Phe Arg
 35 40 45
 Thr Ser Cys Asn Leu Lys Ser His Lys Arg Ile His Thr Gly Glu Asn
 50 55 60
 His His Glu Cys Asn Gln Cys Gly Lys Ala Phe Ser Thr Arg Ser Ser
 65 70 75 80
 Leu Thr Gly His Asn Cys Ile His Thr Gly Glu Lys Pro Tyr Glu Cys
 85 90 95
 Lys Glu Cys Gly Lys Thr Phe Met Tyr Asn Ser Ser Leu Ile Gln His

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      100              105              110
Leu Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly
      115              120              125
Lys Ala Phe Arg Gln His Ser His Leu Val Thr His Gln Lys Ile His
      130              135              140
Thr Gly Glu Lys Pro Tyr Gln Cys Thr Glu Cys Gly Lys Ala Phe Arg
      145              150              155              160
Arg Arg Ser Leu Leu Ile Gln His Arg Arg Ile His Ser Gly Glu Lys
      165              170              175
Pro Tyr Glu Cys Lys Glu Cys Gly Lys Leu Phe Ile Trp Arg Thr Ala
      180              185              190
Phe Leu Lys His Gln Ser Leu His Ala Gly Glu Lys Leu Glu Glu Cys
      195              200              205
Glu Lys Xaa Pro Ser Ala Arg Met Arg Ser Leu Gly Glu Xaa Gln Lys
      210              215              220
Ile His Gln Glu Glu Lys Ala Tyr Trp Cys Asn Gln Cys Gly Arg Ala
      225              230              235              240
Phe Gln Gly Ser Ser Asp Leu Ile Gly His Gln Val Thr His Thr Gly
      245              250              255
Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Xaa Thr Phe Asn Gln Ser
      260              265              270
Ser Asp Leu Leu Arg His His Arg Ile His Ser Gly Glu Lys Pro Tyr
      275              280              285
Val Cys Asn Lys Cys Gly Lys Ser Phe Arg Gly Ser Ser Asp
      290              295              300

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<210> 4027

<211> 941

<212> DNA

<213> Homo sapiens

<400> 4027

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120
ggattgattc agatgggatg tgttttccag agcacagaag tgaaacacgt gaccaaggta
180
gaatggatat tttcaggacg gcgcgcaaag gaggagattg tatttcgtta ctaccacaaa
240
ctcaggatgt ctgcggagta ctcccagagc tggggccact tccagaatcg tgtgaacctg
300
gtgggggaca ttttcgcaa tgacggttcc atcatgcttc aaggagttag ggagtcagat
360
ggaggaaact acacctgcag tatccaccta gggaacctgg tgttcaagaa aaccattgtg
420
ctgcatgtca gcccgaaga gcctcgaaca ctggtgaccc cggcagccct gaggcctctg
480
gtcttgggtg gtaatcagtt ggtgatcatt gtgggaattg tctgtgccac aatcctgctg
540
ctccctgttc tgatattgat cgtgaagaag acctgtggaa ataagagttc agtgaattct
600
acagtcttgg tgaagaacac gaagaagact aatccagaga tgaagaaaa accctgccat
660

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720
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780
caggccagt cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc
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tctgcggagt acagtgcagt gggtcggctg ggacaccccc aggcagcaga tcttgggtatt
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<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

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Lys Glu Leu Met Val His Val Gly Gly Leu Ile Gln Met Gly Cys Val
35 40 45
Phe Gln Ser Thr Glu Val Lys His Val Thr Lys Val Glu Trp Ile Phe
50 55 60
Ser Gly Arg Arg Ala Lys Glu Glu Ile Val Phe Arg Tyr Tyr His Lys
65 70 75 80
Leu Arg Met Ser Ala Glu Tyr Ser Gln Ser Trp Gly His Phe Gln Asn
85 90 95
Arg Val Asn Leu Val Gly Asp Ile Phe Arg Asn Asp Gly Ser Ile Met
100 105 110
Leu Gln Gly Val Arg Glu Ser Asp Gly Gly Asn Tyr Thr Cys Ser Ile
115 120 125
His Leu Gly Asn Leu Val Phe Lys Lys Thr Ile Val Leu His Val Ser
130 135 140
Pro Glu Glu Pro Arg Thr Leu Val Thr Pro Ala Ala Leu Arg Pro Leu
145 150 155 160
Val Leu Gly Gly Asn Gln Leu Val Ile Ile Val Gly Ile Val Cys Ala
165 170 175
Thr Ile Leu Leu Leu Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys
180 185 190
Gly Asn Lys Ser Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr Lys
195 200 205
Lys Thr Asn Pro Glu Met Lys Glu Lys Pro Cys His Phe Glu Arg Cys
210 215 220
Glu Gly Glu Val Asn Thr Arg Phe Ser Leu Lys His
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<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctggtgc tgccgtgctg ggcgctcagc gaggtcagca tgcaggggcga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
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 300
 ccattcttcgt ccgcaaaaac gtgggtggcg tcgccaccaa ggcctgcacc tnnctctgga
 360
 gtaccgcccgc cagggtgcgcg acttcccnnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgcccgcg ccgcgcgcgc cgctgcacgg cccgcctggg
 480
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 540
 cccccgacac gccctggggg cgagagaca ccgggttggc ttggggcgcg cggtttgcac
 600
 gggatgggggt gggggcgggg tccctagggt acagggtcct cgagtgcgcg tgccctgggg
 660
 cccgcggcgc cttcttcate tcaggaatct ctcggaccgc ggatcctcag ccccgctccc
 720
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 aaagactcg
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<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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		20					25				30				
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala	
		35				40					45				
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
		50				55					60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
		65			70					75				80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85					90					95		
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105					110		
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

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          115              120              125
Pro Xaa Pro Pro Ala Leu Ser Leu Glu Leu Gln Pro Pro Pro Gln
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Xaa Pro Pro His Val Leu Ala His Ala
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<210> 4031

<211> 1406

<212> DNA

<213> Homo sapiens

<400> 4031

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120
gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaagtttt tgaagaagtat
180
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cagcaaatag cagatttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca
300
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360
gaaataaaa tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag
420
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480
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720
gaaaagggtt ataagaatgg gtgccgtgtt atactgtttc ccaatggaac tcgaaaggaa
780
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1020
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1080
atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
1140
ccagatggca ctgttaaaac cgtatatgca aacgggtcatc aagaaacgaa gtacagatcc
1200

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ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
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 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
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<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
		20					25						30		
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
		35					40					45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50				55						60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65				70				75					80		
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85				90						95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100				105						110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
		115					120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
		130				135					140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145				150					155					160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165				170							175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180					185						190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
		195				200						205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
		210				215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225				230					235					240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245				250							255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
			260				265						270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
		275					280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290				295						300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp


```

305          310          315          320
Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
          325          330          335
Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
          340          345          350
Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
          355          360          365
Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
          370          375          380
Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
385          390          395          400
Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
          405          410          415
Glu Leu

```

<210> 4033

<211> 487

<212> DNA

<213> Homo sapiens

<400> 4033

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120
tcaagaagag cctcctagt ttggctcta actggctgtg cgacccaggg caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt tccccaggct ggcttctcac
240
tgcagagcag aggaagaaagca ttctgggggc ctgctatgga gggctattta tccagtttac
300
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360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtca
420
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480
ccagtcc
487

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<210> 4034

<211> 94

<212> PRT

<213> Homo sapiens

<400> 4034

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Met Asn Thr Gly Ile Phe Pro Gly Trp Leu Leu Thr Ala Glu Gln Arg
1          5          10          15
Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
          20          25          30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
          35          40          45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

```

50		55		60	
Gln Ala Pro Gly Ala	Ala Cys Gln Asp	Gln Thr Gly Gly Leu Ala	Pro		
65	70	75	80		
Pro Pro Ala Met Cys	Gly Glu Arg Ala	Ser Pro Ser Gln Ser			
	85	90			

<210> 4035

<211> 343

<212> DNA

<213> Homo sapiens

<400> 4035

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nnncttaata gcagtgttat ggaattccat gtgaggcaca aacattcaga caatcctagc
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aatgttctgg aatcctatgt gagggacaaa cattcagacc ccagcagcaa tgttctggaa
120
tcctatggga gggacaaact ctcagaaaaa agcaagagta ttttggaatc ctatctgagg
180
tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagggg caaacattca
240
gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
300
agtgttctgg aatccttttt ttttttgaag ctttcaatct ctt
343

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<210> 4036

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4036

```

Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
1      5      10      15
Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
20     25     30
Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
35     40     45
Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
50     55     60
Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
65     70     75     80
Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
85     90     95
Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Leu Lys Leu Ser
100    105    110
Ile Ser

```

<210> 4037

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4037

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120
ggaggagaag gggttgtct tgcgtgtctca gggcggcaga ggcagaagag aatctgagca
180
tacgtggacc tgtagccagg tgggcataga taaaagaaa tattgtttgc cagtccttgc
240
tggaatgatg cctttacaca tctgtctgat ctgattgtct cactgttttc tgacttctct
300
tccttttcca gggttctagc ctgttcctct agccccatga tggctgttga catcgagtac
360
agatacaact gcatggctcc ttccttgcgc caagagaggt ttgcctttaa gatctcacca
420
aagcccagca aacctactgag gccttgatt cagctgagca gcaagaatga agccagtggg
480
atggtggccc cggtgtcca ggagaagaag gtgaaaaagc ggggtgtcctt cgagacaaac
540
caggggctgg ccctgacaat ggtcaaagt ttctcggaaat tcatgaccc gctagatatg
600
ccattcaaca tcaccagact cctagacaac attgtgagct tgacgacagc agagagcggg
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741

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<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Met Ala Val Asp Ile Glu Tyr Arg Tyr Asn Cys Met Ala Pro Ser Leu
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Arg Gln Glu Arg Phe Ala Phe Lys Ile Ser Pro Lys Pro Ser Lys Pro
      20             25            30
Leu Arg Pro Cys Ile Gln Leu Ser Ser Lys Asn Glu Ala Ser Gly Met
      35             40            45
Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys Lys Arg Val Ser Phe
      50             55            60
Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val Lys Val Phe Ser Glu
      65             70            75            80
Phe Asp Asp Pro Leu Asp Met Pro Phe Asn Ile Thr Glu Leu Leu Asp
      85             90            95
Asn Ile Val Ser Leu Thr Thr Ala Glu Ser Glu Ser Phe Val Leu Asp
      100            105           110
Phe Ser Gln Pro Ser Ala Asp Tyr Leu Asp Phe Arg Asn Arg Leu Gln
      115            120           125
Ala Asp His Val Cys Leu
      130

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<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgcaggag ccttcgcacg cgctagtctg cgagtgcgag ctccagcccg cactctgtcc
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tcagcgcgcg ccgccttccc acccctcgga ccgcgcgcgc tcgcggcgcc cgcctgtccc
240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggccttctcg gccaacagca
300
gcgagggcgc ggagcgagcc gtgcgctgct gacccagggc gtccgtggcg accgacgagc
360
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420
cgggtcatgt cgtgctctca ctacccgtgg tcttcggcat cttcttcttc ggtgcgaatc
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600
ccacgcctg cccactttgc tagcccggtc gtgcccctca ctatcagaga ctggggcgag
660
caaacctgtc ggagtcgaatt atttctctcg acttcggcct ttcggaaaga agcgaccggt
720
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780
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900
aagctctggg ggcaggtgga gaggggcgggc aggggagaga cccagcgcca ctgacgcct
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1380
caaaagtgtc cttgacatcc gtgacaccgt ttgacttttt tgttttttct ttaatttaaca
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1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggt gagatgttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
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300
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420
ctggctttta aactggaggt aggtcgattt ggacaattaa ettatgtctg cagttatcag
480
ggagagctaa agaagggtga caccatctat aacacaagga caagaaagaa agtacggttg
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caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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Asp Leu Ile Glu Glu Arg Ala Ile Tyr Phe Asp Gly Asp Phe Gly Gln
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Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Ala Thr
          20           25           30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
          35           40           45
Leu Gly Glu Met Phe Leu Glu Lys Ile Pro Ser Ile Ser Asp Leu
          50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
          85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
          100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
          115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
          130          135          140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
          165          170          175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
          180          185          190

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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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120
ctcccaaaaa aagacccaaa agttaaaggt gtccaatcag cagctgtaca agcttttctt
180
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240
ctagtgaaaa agcgaattga gctcaaacat gacaagaaa caagagctat ggccaagagg
300
acaaaggata atttccatgg ttacaatggg attcctattg aggaaaaatc aaagaagagg
360
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420
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480
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540
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600

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gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttaggggagcg agaattcctt
 660
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 744

<210> 4044
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 4044
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 Pro Lys Val Lys Gly Val Gln Ser Ala Ala Val Gln Ala Phe Leu Lys
 20 25 30
 Arg Lys Glu Glu Leu Arg Arg Lys Ala Leu Glu Glu Lys Arg Arg
 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75
 Gly Ile Pro Ile Glu Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
 180 185 190
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro
 195 200 205
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys
 210 215

<210> 4045
 <211> 2217
 <212> DNA
 <213> Homo sapiens

<400> 4045
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 120
 aattgaaaaa aacttagaat tttaaagctg agaaagagtt atcgctgtga tgattttgtg
 180

gttaatgaca ccaagctggg actggtacag aaagtcagag aacacttaca gaacttggaa
240
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360
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1080
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1620
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1680
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1800

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 1920
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 1980
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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
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Glu	Gln	Phe	Cys	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg
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			210				215				220				
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      290                295                300
Cys Lys Xaa Lys Gln Lys Ser Thr Lys Lys Phe Trp Ile Gln Lys Leu
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Pro Lys Val Leu Cys Leu His Leu Lys Arg Phe His Trp Thr Ala Tyr
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Leu Arg Asn Lys Val Asp Thr Tyr Val Glu Phe Pro Leu Arg Gly Leu
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Asp Met Lys Cys Tyr Leu Leu Asp Pro Glu Asn Ser Gly Pro Glu Ser
      355                360                365
Cys Leu Tyr Asp Leu Ala Ala Val Val Val His His Gly Ser Gly Val
      370                375                380
Gly Ser Gly His Tyr Thr Ala Tyr Ala Thr His Glu Gly Arg Trp Phe
      385                390                395                400
His Phe Asn Asp Ser Thr Val Thr Leu Thr Asp Glu Glu Thr Val Val
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<211> 809

<212> DNA

<213> Homo sapiens

<400> 4047

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720

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<213> Homo sapiens

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Lys	Val	Tyr	Val	Gln	Leu	Trp	Arg	Arg	Leu	Lys	Ala	Tyr	Asn	Arg	Val
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<213> Homo sapiens

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<211> 403

<212> PRT

<213> Homo sapiens

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 Arg Asp Ser Gln Ser Ser Asp Lys Gln Ile Leu Asn Ile Tyr Asp Leu
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 Cys Asn Lys Phe Ile Ala Tyr Ser Thr Val Phe Glu Asp Val Val Asp
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 Val Leu Ala Glu Trp Gly Ser Leu Tyr Val Leu Thr Arg Asp Gly Arg
 100 105 110
 Val His Ala Leu Gln Glu Lys Asp Thr Gln Thr Lys Leu Glu Met Leu
 115 120 125
 Phe Lys Lys Asn Leu Phe Glu Met Ala Ile Asn Leu Ala Lys Ser Gln
 130 135 140
 His Leu Asp Ser Asp Gly Leu Ala Gln Ile Phe Met Gln Tyr Gly Asp
 145 150 155 160
 His Leu Tyr Ser Lys Gly Asn His Asp Gly Ala Val Gln Gln Tyr Ile
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 Arg Thr Ile Gly Lys Leu Glu Pro Ser Tyr Val Ile Arg Lys Phe Leu
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Lys	Ser	Glu	Ser	Glu	Val	His	Phe	Asp	Val	Glu	Thr	Ala	Ile	Lys	Val														
245										250										255									
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<211> 1645

<212> DNA

<213> Homo sapiens

<400> 4051

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<212> PRT

<213> Homo sapiens

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 Pro Thr Lys Pro Leu Pro Pro Ala Pro Pro Ser Met Gly Ser Asp Ser
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<211> 461

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4056

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Cys	Phe	Ala	Ser	Leu	Ala	Asp	Arg	Phe	Thr	Arg	Arg	Gly	Val	Asp	Pro
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Ala	Pro	Leu	Ala	Lys	His	Gly	Leu	Thr	Glu	Glu	Leu	Leu	Ser	Arg	Met
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Val Arg Thr Met Ala Arg Asp Leu Tyr Asp Asp His Phe Lys Ala Val
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<212> DNA

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<400> 4057

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tcatttaaca gatgacgga ataatcccta aaagcaccca catttgtttc aatgccccaa
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acaggccaag gctccctagc aactccctag tggcggtttt taacttctca gaaactgtta
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4137

<210> 4064

<211> 818

<212> PRT

<213> Homo sapiens

<400> 4064

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Asp Val Glu Leu Gly Ser Met Gln Val Met Asn Lys Thr Arg Arg Ile
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Met Glu Gln Gly Gly Thr His Phe Ile Asn Ala Phe Val Thr Thr Pro
          20          25          30
Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
          35          40          45
Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
          50          55          60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
65          70          75          80
Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
          85          90          95
Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
          100          105          110
Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
          115          120          125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
          130          135          140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
          145          150          155          160
Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
          165          170          175          180
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
          180          185          190          195
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
          195          200          205          210
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
          210          215          220          225
Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
          230          235          240          245
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
          245          250          255          260
Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
          260          265          270          275
Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
          275          280          285          290
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
          290          295          300          305
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
          310          315          320          325
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
          325          330          335          340
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
          340          345          350          355
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
          355          360          365          370
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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370	375	380
Tyr Gln Arg Val Lys Asp	Leu Cys Gln Arg	Ala Glu Tyr Gln Thr Ala
385	390	395
Cys Glu Gln Leu Gly Gln Lys Trp	Gln Cys Val Glu Asp Ala Thr Gly	400
	405	415
Lys Leu Lys Leu His Lys Cys Lys Gly	Pro Met Arg Leu Gly Gly Ser	
	420	430
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr	Gly Gln Gly Ser Glu	
	435	445
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser	Leu Ala Gly Arg	
	450	460
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		
	465	475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr		
	485	490
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		
	500	505
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp		
	515	520
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa		
	530	535
Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln		
	545	550
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys		
	565	570
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn		
	580	585
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys		
	595	600
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys		
	610	615
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys		
	625	630
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		
	645	650
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly		
	660	665
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe		
	675	680
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		
	690	695
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys		
	705	710
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		
	725	730
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		
	740	745
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		
	755	760
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		
	770	775
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		
	785	790
Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp		
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		800

805810815

Glu Gly

<210> 4065
 <211> 696
 <212> DNA
 <213> Homo sapiens

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 120 ctgtgtaaatg aagtgaattt cccattgcta ctaaactgct ttggacaacc tggatcaaaag
 180 tggataccatg tctcctacac atacaggcggc cccttcgaa ctactattgg atacataaat
 240 gtgaagacac aagagccttt gcaactggac tgtgaccttt gtgccatagt gtcaaactca
 300 ggtcacgatgt ttggccagaa ggtgggaaat gagatagatc gatcctcctg cattttggaga
 360 atgaacaatg cccccaccaa aggttatgaa gaagatgtcg gccgcatgac catgattcga
 420 gttgtgtctcc ataccagcgt tcctcttttg ctaaaaaacc ctgattattt tttcaaggaa
 480 gcgaataacta ctatttatgt tattttgggga cctttccgca atatgaggaa agatggcaat
 540 ggcctcgtnt acaacatggt gaaaaagaca gttggtatct atccgaatgc ccaatatatac
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 696

<210> 4066
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 4066
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 20 25 30
 Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
 35 40 45
 Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
 50 55 60
 Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
 65 70 75 80
 Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
 85 90 95
 Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

acaatcacct cttctgctgt cactggaagg atggccattc ctggggctag tggatacca
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 1080
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 1140
 gaaaatgcct tgggtcagat ggcgggatgca aatcaagctc agctagcaat gaaccatcta
 1200
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 1260
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 1320
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 1380
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 1560
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 1620
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 1680
 agcagctcaa gaccaatttt gcctctttca caaaaataac tctttctgag ttgatatttc
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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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 20 25 30
 Arg Lys Ile Pro Cys Asp Val Thr Glu Ala Glu Ile Ile Ser Leu Gly
 35 40 45
 Leu Pro Phe Gly Lys Val Thr Asn Leu Leu Met Leu Lys Gly Lys Ser
 50 55 60
 Gln Ala Phe Leu Glu Met Ala Ser Glu Glu Ala Val Thr Met Val
 65 70 75 80
 Asn Tyr Tyr Thr Pro Ile Thr Pro His Leu Arg Ser Gln Pro Val Tyr
 85 90 95
 Ile Gln Tyr Ser Asn His Arg Glu Leu Lys Thr Asp Asn Leu Pro Asn
 100 105 110
 Gln Ala Arg Ala Gln Ala Ala Leu Gln Ala Val Ser Ala Val Gln Ser
 115 120 125
 Gly Ser Leu Ala Leu Ser Gly Gly Pro Ser Asn Glu Gly Thr Val Leu
 130 135 140
 Pro Gly Gln Ser Pro Val Leu Arg Ile Ile Ile Glu Asn Leu Phe Tyr


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145          150          155          160
Pro Val Thr Leu Glu Val Leu His Gln Ile Phe Ser Lys Phe Gly Thr
165          170          175
Val Leu Lys Ile Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu
180          185          190
Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
195          200          205
Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
210          215          220
Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
245          250          255
Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
260          265          270
Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
275          280          285
Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
290          295          300
Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
305          310          315
Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
325          330          335
Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
340          345          350
Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
355          360          365
Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
370          375          380
Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
385          390          395
His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
400          405          410
Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
420          425          430
Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
435          440          445
Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
450          455          460
Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
465          470          475
Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
485          490          495
Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu
500          505          510
Arg Val Ser Phe Ser Lys Ser Thr Ile
515          520

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<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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120
ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataccatc
180
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240
ccttttgagg atacattgag ttggatgcta ttggctggc agcagccggt ttcacatgat
300
gagaagaaaa gtgaagcaaa gtcaccttcc aatggcgttg ggatcattggc ctcaaagccg
360
gtagatgttg cctcagataa tgttaaaaag aaacatacta agaagaatga ataaatttac
420
gtgatgagct ctacaaggcc aaaaattttt tttcttatct acctgttata ttgtgctaata
480
ttttctatgt atgtgatgtg aaatgaagac tatatatatg gaatggagggt gacagaaaga
540
aagaaattct ttgtttgagg gagacttccc ctttctggat tgtatttgta gagtgttacg
600
agtgatcatg gtgattatgc ttaccgggta taagagattc tgtgtgatt atttgaatag
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<210> 4070
<211> 113
<212> PRT
<213> Homo sapiens

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<400> 4070
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20 25 30
Leu Tyr Thr Ile Phe Ile Val Ala Thr Lys Ile Thr Met Met Thr Thr
35 40 45
Gln Thr Ser Thr Met Thr Phe Ala Pro Phe Glu Asp Thr Leu Ser Trp
50 55 60
Met Leu Phe Gly Trp Gln Gln Pro Phe Ser Ser Cys Glu Lys Lys Ser
65 70 75 80
Glu Ala Lys Ser Pro Ser Asn Gly Val Gly Ser Leu Ala Ser Lys Pro
85 90 95
Val Asp Val Ala Ser Asp Asn Val Lys Lys Lys His Thr Lys Lys Asn
100 105 110
Glu

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<210> 4071
<211> 601
<212> DNA
<213> Homo sapiens

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<400> 4071

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 120
 catccacgat tgcctgtagt tcttgcaggc actgccctc cagctggaga cgtgcatcac
 180
 ccacacacca ggccaggctg aggtggaaaag aaggatcctg gtagaagtgt gtgaggttga
 240
 attctccat gactctgtcc acctctgaaa ccagggtccag gaactgggca tgccttgaag
 300
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 360
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 420
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 480
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 600
 c
 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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		20						25				30			
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35					40				45				
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
		50				55					60				
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75				80	
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
			85						90				95		
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
		100					105					110			
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
		115					120				125				
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
		130				135					140				
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
145					150					155				160	
Val	Arg	Cys	Lys	Ser	Gly	Asn	Lys	Phe	Phe	Ser	Met	Pro	Leu	Lys	
			165						170					175	

<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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120
gcccccggt acctcccctg gaggcacaga gggcgggggc cttggcgaat ggctttcttg
180
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240
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360
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420
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480
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540
aaagaccaga gtaatcgcca gaagcacgca gatggaatga taagtactat taatcccgta
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960
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1140
cagggttagc ttggaatgga tcttactaag gtatgtcttc caacgtttat tcttgaaaga
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1320
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1440
gaaggaccag ttccctgggt ttccaaaaac agtgaacat ttgtggctga gcaggttcc
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 1740
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 1860
 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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Asp	Gln	Ser	Asn	Ala	Glu	Lys	His	Ala	Asp	Gly	Met	Ile	Ser	Thr	Ile
			20					25					30		
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
			35				40					45			
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
		50				55					60				
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
65					70				75					80	
Ala	Thr	Leu	Gly	His	His	Gln	Thr	Pro	Thr	Pro	Asn	Ser	Thr	Gly	Ser
				85					90				95		
Gly	His	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ser	Pro	Ser	His	Val	Asn
			100					105					110		
Leu	Ser	Pro	Asn	Thr	Val	Pro	Glu	Phe	Ser	Tyr	Ser	Ser	Ser	Glu	Asp
			115				120					125			
Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
		130				135					140				
Arg	Leu	Ile	Asp	Ser	Ser	Gly	Ser	Ala	Ser	Val	Leu	Thr	His	Ser	Ser
145					150					155				160	
Ser	Gly	Asn	Ser	Leu	Lys	Arg	Pro	Asp	Thr	Thr	Glu	Ser	Leu	Asn	Ser
				165					170					175	
Ser	Leu	Ser	Asn	Gly	Thr	Ser	Asp	Ala	Asp	Leu	Phe	Asp	Ser	His	Asp
			180				185						190		
Asp	Arg	Asp	Asp	Asp	Ala	Glu	Ala	Gly	Ser	Val	Glu	Glu	His	Lys	Ser
			195				200								
Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
		210				215					220				
Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
225					230					235				240	
Met	Tyr	Ala	Asp	Phe	Phe	Ala	His	Pro	Asp	Leu	Phe	Val	Ser	Ile	Ser
				245					250					255	
Asp	Gln	Lys	Asp	Pro	Lys	Asp	Arg	Met	Val	Gln	Val	Val	Lys	Trp	Tyr

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Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
      275                280                285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
      290                295                300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
      305                310                315
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
      320                325                330                335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
      340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
      355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
      370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
      385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
      405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
      420                425                430
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Asp Lys Lys Ser Phe Cys Ser Ile
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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660

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<210> 4076

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Val	Asn	Leu	Asp	Gln	Trp	Thr	Gln	Glu	Gln	Ile	Gln	Cys	Met	Gln	Glu
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Ala	Phe	Arg	Lys	Glu	Lys	Asp	Asp	Lys	Trp	Lys	Arg	Gly	Ser	Glu	Pro
		115					120					125			
Val	Pro	Glu	Lys	Lys	Leu	Glu	Pro	Val	Val	Phe	Glu	Lys	Val	Lys	Met
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Pro	Gln	Lys	Lys	Glu	Asp	Pro	Gln	Leu	Pro	Arg	Lys	Ser	Ser	Pro	Lys
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Ser	Thr	Ala	Pro	Val	Met	Asp	Leu	Leu	Gly	Leu	Asp	Ala	Pro	Val	Ala
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Cys	Ser	Ile	Ala	Asn	Ser	Lys	Thr	Ser	Asn	Thr	Leu	Glu	Lys	Asp	Leu
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Asp	Leu	Leu	Ala	Ser	Val	Pro	Ser	Pro	Ser	Ser	Ser	Gly	Ser	Arg	Lys
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Val	Val	Gly	Ser	Met	Pro	Thr	Ala	Gly	Ser	Ala	Gly	Ser	Val	Pro	Glu
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Asn	Leu	Asn	Leu	Phe	Pro	Glu	Pro	Gly	Ser	Lys	Ser	Glu	Glu	Ile	Gly
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Lys	Lys	Gln	Leu	Ser	Lys	Asp	Ser	Ile	Leu	Ser	Leu	Tyr	Gly	Ser	Gln
				245					250					255	
Thr	Pro	Gln	Met	Pro	Thr	Gln	Ala	Met	Phe	Met	Ala	Pro	Ala	Gln	Met
			260					265						270	
Ala	Tyr	Pro	Thr	Ala	Tyr	Pro	Ser	Phe	Pro	Gly	Val	Thr	Pro	Pro	Asn
			275					280				285			
Ser	Ile	Met	Gly	Ser	Met	Met	Pro	Pro	Pro	Val	Gly	Met	Val	Ala	Gln
		290				295					300				
Pro	Gly	Ala	Ser	Gly	Met	Val	Ala	Pro	Met	Ala	Met	Pro	Ala	Gly	Tyr


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          340          345          350
Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr
          355          360          365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
          370          375          380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala
385          390          395          400
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<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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 nta
 783

<210> 4080
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 <212> PRT
 <213> Homo sapiens

<400> 4080
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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
 65 70 75 80
 Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
 85 90 95
 His Ala Arg Thr Lys
 100

<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

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<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 4082
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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
 50 55 60
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
 Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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 Ile Lys Pro Gly Asp Pro Arg
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<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Val Tyr Gly Leu Asn Phe Ala Ser Lys Glu Glu Ala Thr Thr Phe Ser
 35 40 45
 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly
 50 55 60
 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met
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 Asp Ile Gln Arg Arg Gln Val Met Glu Gln His Gln Gln Gln Arg Gln
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 Glu Ser Leu Glu Arg Arg Thr Ser Ala Thr Gly Pro Ile Leu Pro Pro

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      145              150              155
His Asp Glu Ser Ser Met Ser Gly Leu Ala Ala Ile Ala Gly Ala
      165              170              175
Lys Leu Arg Arg Val Gln Arg Pro Glu Asp Ala Ser Gly Gly Ser Ser
      180              185              190
Pro Ser Gly Thr Ser Lys Ser Asp Ala Asn Arg Ala Ser Ser Gly Gly
      195              200              205
Gly Gly Gly Gly Leu Met Glu Glu Met Asn Lys Leu Leu Ala Lys Arg
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Arg Lys Ala Ala Ser Gln Ser Asp Lys Pro Ala Glu Lys Lys Glu Asp
      225              230              235
Glu Ser Gln Met Glu Asp Pro Ser Thr Ser Pro Ser Pro Gly Thr Arg
      245              250              255
Ala Ala Ser Gln Pro Pro Asn Ser Ser Glu Ala Gly Arg Lys Pro Trp
      260              265              270
Glu Arg Ser Asn Ser Val Glu Lys Pro Val Ser Ser Ile Leu Ser Arg
      275              280              285
Thr Pro Ser Val Ala Lys Ser Pro Glu Ala Lys Ser Pro Leu Gln Ser
      290              295              300
Gln Pro His Ser Arg Met Lys Pro Ala Gly Ser Val Asn Asp Met Ala
      305              310              315
Leu Asp Ala Phe Asp Leu Asp Arg Met Lys Gln Glu Ile Leu Glu Glu
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<210> 4085

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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420

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1980
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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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			20					25					30		
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Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
65					70					75				80	
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
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Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
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Tyr	Lys	Glu	Leu	Gly	His	Leu	Thr	His	Gln	Gln	Ala	Arg	Glu	Val	Lys														
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Ser	Cys	Pro	Leu	Lys	Ala	Asp	Ser	Lys	Ala	Val	Ile	Arg	Glu	Ile	Gln														
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		500					505						510																
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		545			550					555				560															
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			565				570						575																
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          660          665          670
Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
          675          680          685
Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
          690          695          700
Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
705          710          715          720
Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Gly
          725          730          735
Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
          740          745          750
Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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780

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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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		20						25					30		
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
		35					40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65					70					75					80
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
		115				120						125			
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			165						170					175	
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185					190		
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		195					200					205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
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Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
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Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
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Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
			260					265					270		
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			275				280					285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
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<210> 4089

<211> 511

<212> DNA

<213> Homo sapiens

<400> 4089

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<210> 4090

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4090

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			20					25					30		
Lys	Asn	Tyr	Ala	Leu	Gln	Glu	His	Val	Ser	Phe	Val	Ile	Phe	Leu	Ser
	35						40				45				
Ser	Asn	Phe	Phe	Trp	Arg	Asp	Glu	Ser	Phe	Asp	Leu	Thr	Leu	Arg	Ile
	50				55						60				
Gly	Leu	Lys	Pro	Phe	Glu	Arg	Thr	Lys	Glu	Ile	Glu	Ser	Ala	Phe	Leu
	65				70				75					80	
Ser	Pro	Cys	Ser	Glu	Asp	Pro	Ser	His	Leu	Val	Thr	Ala	Pro	Trp	Ala
			85					90					95		
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<210> 4091

<211> 1526

<212> DNA

<213> Homo sapiens

<400> 4091

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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50          55          60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65          70          75          80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85          90          95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
100          105          110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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145

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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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660
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720

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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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1				5					10					15	
His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50				55					60					
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
	65				70				75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
		130				135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser


```

145          150          155          160
Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
          165          170          175
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
          180          185          190
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
          195          200          205
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
          210          215          220
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
225          230          235          240
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
          245          250          255
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Ala Ala
          260          265          270
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
          275          280          285
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
          290          295          300
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
305          310          315          320
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
          325          330          335
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
          340          345          350
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
          355          360          365
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
          370          375          380
Ala Glu Thr Lys Asn Ala Ala
385          390

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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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60
agggtcagat agtggggggg ggggttcagct ccactgtcca ggtgaggaaa ctgaggctga
120
agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggagggcc tgtgcacgtg
180
tgtctggaag tgtgtgtcca ggcagcatat ctgcatgtgt gtgcctgtcc agacagcata
240
tctgtgcacg cgt
253

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<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

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Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
 1           5           10           15
Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Phe Ser Ser Thr Val
      20           25           30
Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
      35           40           45
Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
      50           55           60
Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
      65           70           75           80
Cys Ala Arg

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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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ctgggacgcg tgccgcgcac tggcacggca ggggcgcgcg ccagggtgca cgattcactg
120
cgtgctgtcc tcacttgctc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt
180
gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag
240
attcctttct tggcaactgg aggtcaaggc gaatatattaa cttatatctg cctgtcagtg
300
acaaacaaga aaccacaca ggcgctccatc acaaaggcca aacagtttga aggcctccaca
360
tcatttgctc ggagatcaca gtggatgctc gagcagcttc gccaggttaa tggtatcgat
420
cctaattggg attcggcaga gtttgatttg ttgtttgaaa atgcttttga ccagtgggta
480
gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg
540
tacctcacgc acaggaagcc agagtttatt aactgccaat ccaaaattat gggaggaaac
600
agcatcctcc attcagctgc tgacagcgtg accagcgcag tgcagaaggc aagccaggcc
660
ttgaatgagc gtggagagcg attaggccga gcagaggaga agacagaaga cctgaagaac
720
agcgcgccagc agtttgagaa aactgcgcac aagcttgcca tgaagcacia atgttgagaa
780
actgcctatc ctggtgactc ttcttaagag aaactgaaga gtttgcttac cagtttttcc
840
aagaattcgg gacctccgct tgctttcttt ttccaatat ttggacactt agagtgggtt
900
ttgttttttc ttttcagatg ttaatgtgaa agaaagggtg ttgcattttt acatttccct
960
aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctcctc
1020

```

ccactgtgtg tatgtgtgta tatgtatgtt ttgaatatgt tttctttatt aaaaaatatt
 1080
 ttttgtagtt tgaatatgaa atttggacca aatgataaac tgcgctgagt ctaaactggc
 1140
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggg gacatcagat
 1200
 gttatttttc ctatagtaaa ataaaagtca agcagtgatt agtttccact actgtcctag
 1260
 ctacacttaa tttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa
 1320
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 1380
 gttca
 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50				55				60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Thr	Lys	Lys	Lys	
			65		70				75					80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
			130			135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
			145		150					155					160
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165					170						175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180				185						190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
			195				200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
			210			215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
			225		230					235					240
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
				245				250						255	

Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4099
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 60
 attagggaaa ggttttctgt gaaattacct tctgattgta gccacatgaa acacatcaac
 120
 ttaacaata aaaaattgta taatggaatt ggatcagggg gttcccaaaa ccccttcac
 180
 tgaggtttgg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg
 240
 ctttgattta ttacatttaa tacagcaaaa agacacaaag caacatttga gaaaggaaaa
 300
 ggtgcagtgt tcaagtctg gaggaagcca ggcacaagct acaggagtca tctcctgtgt
 360
 agctagcagg atatgcttaa ttccccagc ctcaaatctt gacgacacat gtgcaatgtt
 420
 gtctacctta ccagagtctt attagaggct cagcaccat gtttctgatg gaggctagtc
 480
 acataggcaa cctctctctt cctcacgcy t
 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
 Met Glu Leu Asp Gln Gly Val Pro Lys Thr Pro Phe Thr Glu Val Trp
 1 5 10 15
 Gln Phe Thr Glu Lys Asp Ser Gln Asp Ser Ala Asp Ser His Thr Trp
 20 25 30
 Gly Phe Asp Leu Leu His Leu Ile Gln Lys Asp Thr Lys Gln His
 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
 100

<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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60
aagttggact cgtattgctg tgtgggggtcc cagtgcacgc gtgtgcaccc gctacaagat
120
ccaggaaaga tggcacacgg cagacgacga caggaaggac acctgtctccc cacccttccc
180
gggacccccg catgtgcaaa attcagctg gggctctgcag ctgcttgagg agacccaggg
240
cctcttgctc cacagcctgc aaggtctgag caggcaacgg ccttggggcg gtgaggcccc
300
cgcttggtca ctccccgcgc ccccatgca ggcagtggag gggaggacac gcaggaggac
360
cagacgctaa aggtgtaaac gggcagccgt ggcactcctc acctctcaat aaataagata
420
aataactaaa taaataaaca actaataaaa gacatgaagg aatggatgca gagcgtgaa
480
cggatggcgc aggacgtccc tgggtggggc cacggtcccc ttaaggcatg tgggag
536

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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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Met Cys Leu Leu Ser Trp Thr Arg Ile Ala Val Trp Gly Pro Ser Ala
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Arg Val Cys Thr Arg Tyr Lys Ile Gln Glu Arg Trp His Thr Ala Asp
20 25 30
Asp Asp Arg Lys Asp Thr Cys Ser Pro Pro Phe Pro Gly Pro Arg His
35 40 45
Val Gln Asn Ser Ser Trp Gly Leu Gln Leu Leu Gly Thr Gln Gly
50 55 60
Leu Leu Leu His Ser Leu Gln Gly Leu Ser Arg Gln Arg Pro Trp Gly
65 70 75 80
Gly Glu Ala Pro Ala Trp Ser Leu Pro Ala Pro Pro Met Gln Ala Val
85 90 95
Glu Gly Arg Thr Arg Arg Arg Thr Arg Arg
100 105

```

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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120
gaggaggaag gcggtgacga gtctgacctg agttcggaat ccagcattaa gaagaaatct
180
caagaggaaa ggaagacccg acagtccttg gataagccag ccaggaaaag gaggcggaga
240

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agtagaaaaga agcccagcgg tgccctcggg tctgagtcgt ataagtcac tgacggaagc
 300
 gctgagcaga cggcaccagg agacagcaca gggtagatgg aagtttctct ggactccctg
 360
 gatctccgag tcaaaggaat tctgtcttca caagcagaag ggttgcccaa cggctccagat
 420
 gtgctggaga cagacggcct ccaggaagtg cctctctgca gctgcccggat ggaacacccg
 480
 aagagtcgag agatcaccac actggccaac aaccagtgc tggctacaga gagcgtggac
 540
 catgaattgg gccggtgcac aaacagcgtg gtcaagtatg agctgatgcg cccctccaac
 600
 aaggccccgc tctctgtgct gtgtgaagac caccggggcc gcattggtgaa gcaccagtgc
 660
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 720
 agcatctctc accgtttcca caaagactgt gcctctcgag tcaataacgc cagctattgt
 780
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 840
 acctgcacgg tgacaccagt ccccgggcag gagaagggtc cggcncctgg aggcaggggc
 900cgggagcgtg tnnccggggc caccactctc ggaggacgac aagctgcagg 960
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 1020
 ccaactcccg gcctttccca gggaccaggg aaggaaacct tggagagcgc tctcatcgcc
 1080
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 1140
 aggcgaagggg agcttcagaa ggtgctcctc atgctggtgg acggaattga ccccaacttc
 1200
 aaaaatggagc accagaataa gcgctctcca ctgcacgcgg cggcagaggc tggacacgtg
 1260
 gacatctgcc acatgtgggt tcaggcgggg gctaattattg acactgctc agaagaccag
 1320
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 1380
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 1440
 gccaaagaa gccactacga agtggtccag tacctgcttt caaatggacg gatggacgtc
 1500
 aactgtcagg atgacggagg ctggacaccc atgatctggg ccacagagta caagcacgtg
 1560
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 1620
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 1680
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 1740
 gcccgggaga accgctacga ctgtgtcgtc ctctttcttt ctggggattc agatgtcacc
 1800
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 1860
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 1920

gagaggatag tgagcagggga catcgctcga ggctacgagc gcatcccat ccctgtgtc
 1980
 aacgccctgg acagcgagcc atgccccagc aactacaagt acgtctctca gaactgcgtg
 2040
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 2160
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 2220
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 2280
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 2340
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 2460
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 2520
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 2580
 ttcagcacc ccctgatcga ggccggcgag cagctcgggt ttgactatgg agagcgcttc
 2640
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 2700
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 2940
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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Ser	Glu	Ala	Asp	Arg	Ala	Gln	Lys	Met	Asp	Gly	Glu	Ser	Glu	Glu	Glu
			20					25					30		
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
			35				40				45				
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50					55				60					
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75					80
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
				85					90					95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
			100					105					110		
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
		115					120					125			
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
						135					140				
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
				150						155				160	
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
			165						170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
			180						185				190		
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
		195					200					205			
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly	Cys
		210				215					220				
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu	Ser
				230						235				240	
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn	Asn
			245					250						255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys	Glu
			260				265						270		
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val	Pro
		275					280					285			
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr	Thr
		290				295					300				
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys	Arg
				310					315					320	
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
				325					330					335	
Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys	Glu
			340				345						350		
Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
			355				360					365			
Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly	Glu
					375						380				
Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn	Phe
				390						395				400	
Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
				405					410					415	
Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
			420					425					430		
Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
			435				440					445			
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
		450				455					460				
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu	Ala
				470						475				480	
Ala	Lys	Lys	Gly	His	Tyr	Glu	Val	Val	Gln	Tyr	Leu	Leu	Ser	Asn	Gly
				485					490					495	
Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Met	Ile

500										505					510				
Trp	Ala	Thr	Glu	Tyr	Lys	His	Val	Asp	Leu	Val	Lys	Leu	Leu	Leu	Ser				
515										520					525				
Lys	Gly	Ser	Asp	Ile	Asn	Ile	Arg	Asp	Asn	Glu	Glu	Asn	Ile	Cys	Leu				
530										535					540				
His	Trp	Ala	Ala	Phe	Ser	Gly	Cys	Val	Asp	Ile	Ala	Glu	Ile	Leu	Leu				
545										555					560				
Ala	Ala	Lys	Cys	Asp	Leu	His	Ala	Val	Asn	Ile	His	Gly	Asp	Ser	Pro				
565										570					575				
Leu	His	Ile	Ala	Ala	Arg	Glu	Asn	Arg	Tyr	Asp	Cys	Val	Val	Leu	Phe				
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Met	Ser	Lys	Ala	Leu	Gln	Asp	Ser	Ala	Pro	Asp	Arg	Pro	Ser	Pro	Val				
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Glu	Arg	Ile	Val	Ser	Arg	Asp	Ile	Ala	Arg	Gly	Tyr	Glu	Arg	Ile	Pro				
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Ser	Asn	Cys	Met	Cys	Gly	Gln	Leu	Ser	Met	Arg	Cys	Trp	Tyr	Asp	Lys	</			

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His	Ala	Asn	Lys	Val	Lys	Val	Leu	Asp	Ala	Pro	Val	Pro	Asp	Cys	Leu		
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Gly	Val	His	Cys	Asp	Phe	His	Gln	Gly	Leu	Leu	Ser	Phe	Tyr	Asn	Ala		
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<210> 4107

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<210> 4108

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
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Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
			50			55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
65					70					75				80	
Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
			85						90					95	
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
			100					105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
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Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
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Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
145				150						155				160	
Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165						170					175	
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
			180						185				190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
			195				200					205			
Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

210		215		220
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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg				
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<211> 375

<212> PRT

<213> Homo sapiens

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Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
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His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
	50				55					60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
	65				70				75					80	
Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
		85						90					95		
Gly	Pro	Asn	Gly	Val	Trp	Thr	Leu	Leu	Gln	Lys	Gly	Arg	Ser	Val	Ser
		100					105						110		
Ala	Ala	Asp	Leu	Ser	Glu	Ala	Glu	Pro	Thr	Leu	Thr	His	Met	Ser	Ile
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Thr	Arg	Leu	His	Glu	Gln	Lys	Leu	Val	Gln	His	Val	Val	Ser	Gln	Asn
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		165						170						175	
Asn	Arg	Glu	Tyr	Val	Arg	Val	Phe	Asp	Val	Thr	Glu	Arg	Thr	Ala	Leu
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 Asp Thr Arg Arg Leu Ser Phe Leu Val Ser Tyr Ile Ala Ser Lys Lys
 65 70 75 80
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 85 90 95
 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly
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 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
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 145 150 155 160
 Asp Gly Lys Met Ile Lys Asn Glu Val Asp Met Gln Val Leu His Leu
 165 170 175
 Leu Gly Pro Lys Leu Glu Ala Asp Leu Glu Lys Lys Phe Lys Val Ala
 180 185 190
 Lys Ala Arg Leu Glu Glu Thr Asp Arg Arg Thr Ala Lys Asp Val Val
 195 200 205
 Glu Asn Gly Glu Thr Ala Asp Gln Thr Leu Ser Leu Met Glu Gln Leu
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 Arg Gly Glu Ala Leu Lys Phe His Lys Pro Gly Glu Asn Tyr Lys Thr
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 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His
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 Leu Glu Ile Thr Gly Gly Gln Val Arg Thr Arg Phe Pro Pro Glu Pro
 260 265 270
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 Gly Tyr Ala Lys Ala Asn Asn Gly Ile Cys Phe Leu Arg Phe Asp Asp
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 Thr Asn Pro Glu Lys Glu Glu Ala Lys Phe Phe Thr Ala Ile Cys Asp
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725					730					735					
Pro	Asp	Ser	His	Gln	Gly	Lys	Leu	Val	Phe	Asn	Arg	Thr	Val	Thr	Leu
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<210> 4113
 <211> 1894
 <212> DNA
 <213> Homo sapiens

<400> 4113
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 180
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 300
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 480
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 540
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 1320

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 1380
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 1620
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 1860
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 1894

<210> 4114
 <211> 389
 <212> PRT
 <213> Homo sapiens

<400> 4114
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 35 40 45
 Pro Ser Pro Asp Arg Phe Gly Met Leu Pro Leu Asp Glu Pro Ala Ile
 50 55 60
 Leu Val Ser Glu Phe Leu Asp Arg Phe Gln Ser Leu Cys His Leu Asp
 65 70 75 80
 Leu Gln Leu Pro Ser Leu Arg Pro Glu Asp Leu Lys Thr Met Cys Leu
 85 90 95
 Thr Glu Asp Lys Ile Ser Leu Leu Leu His Leu Leu Glu Asp Glu Leu
 100 105 110
 Asp His Arg Thr Asp Glu Arg Lys Thr Thr Ile Lys Leu Gly Ser Asp
 115 120 125
 Ile Gln Val His Val Thr Ala Cys Ile Leu Ser Val Cys Gly Trp Ala
 130 135 140
 Cys Ser Ser Ser Leu Glu Ser Met Gln Leu Ser Leu Ile Ala Cys Ser
 145 150 155 160
 Gln Cys Met Arg Lys Val Gly Leu Trp Gly Phe Gln Gln Ile Glu Ser
 165 170 175
 Ser Met Thr Asp Leu Asp Ala Ser Phe Gly Leu Thr Ser Ser Pro Ile
 180 185 190
 Pro Gly Leu Glu Gly Arg Pro Glu Arg Leu Pro Leu Val Pro Glu Ser
 195 200 205
 Pro Arg Arg Met Met Thr Arg Ser Gln Asp Ala Thr Phe Ser Pro Gly

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      210              215              220
Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
225              230              235              240
Ser Trp Asp Ser Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala
      245              250              255
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly
      260              265              270
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
      275              280              285
Ala Ser Ser Leu Cys Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
      290              295              300
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
305              310              315              320
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
      325              330              335
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
      340              345              350
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
      355              360              365
Leu Ser Glu Lys Ser Arg Lys Val Phe Arg Ile Phe Arg Gln Trp Glu
      370              375              380
Ser Leu Cys Ser Cys
385

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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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120
accaaataatt gtacagagtg tgccagtagg cttttgcaac tggactgaaa atacctgcct
180
tttctctcca caggggaaag tggaagttga agctgggaaa gaaggtatga agtttgaagc
240
gagcgccctc tcatactatg gcgtgatggc cctgacagcc tctccaggtg aaaataagtc
300
ccctcctcgc ccattgtggt tgaatcactc agactctctc agtcgaagcg accggattga
360
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420
ctacatcccc gattactcgg tgcgagccct ttcggatctg cagtttggtta agatctcaag
480
acagcaatac caaaatgcct tgatggcatt ccgcatggac aaaaccccc agtcttcaga
540
cagtgaaaac actaaaatcg aattgactct tacggagctg catgacgggt tgccagacga
600
gacagccaac ctgctcaacg aacagaaactg tgtgacgcac agtaaggcca accacagcct
660
gcacaacgaa ggcgccatct agggcgcgct ggctgcaccc gccacggccc gcacccgccc
720

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 780
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<210> 4116

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4116

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			20					25					30		
Asn	His	Ser	Asp	Ser	Leu	Ser	Arg	Ser	Asp	Arg	Ile	Asp	Ala	Val	Thr
	35						40					45			
Pro	Thr	Leu	Gly	Ser	Ser	Asn	Asn	Gln	Leu	Asn	Ser	Ser	Leu	Leu	Gln
	50					55					60				
Val	Tyr	Ile	Pro	Asp	Tyr	Ser	Val	Arg	Ala	Leu	Ser	Asp	Leu	Gln	Phe
65					70				75					80	
Val	Lys	Ile	Ser	Arg	Gln	Gln	Tyr	Gln	Asn	Ala	Leu	Met	Ala	Ser	Arg
			85					90					95		
Met	Asp	Lys	Thr	Pro	Gln	Ser	Ser	Asp	Ser	Glu	Asn	Thr	Lys	Ile	Glu
			100					105					110		
Leu	Thr	Leu	Thr	Glu	Leu	His	Asp	Gly	Leu	Pro	Asp	Glu	Thr	Ala	Asn
		115					120					125			
Leu	Leu	Asn	Glu	Gln	Asn	Cys	Val	Thr	His	Ser	Lys	Ala	Asn	His	Ser
	130					135						140			
Leu	His	Asn	Glu	Gly	Ala	Ile									
145					150										

<210> 4117

<211> 973

<212> DNA

<213> Homo sapiens

<400> 4117

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 240

cctgcctggc tggggactaa gcagtgtcca gagtgggggc agggagaaca gagggcttga
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 480
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 600
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 660
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 720
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 780
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 840
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 960
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 973

<210> 4118
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4118
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 20 25 30
 Gly Cys Gly Arg Trp Pro Gln Pro Pro Gly Gly Ile Leu Glu Trp Glu
 35 40 45
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro
 50 55 60
 Gly Glu Ala Thr Pro Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro
 65 70 75 80
 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly
 85 90 95
 Cys Val Cys Ala Gly Leu Gly Pro Asn Thr Pro Gly Cys Gln Leu His
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 Pro Pro Ala Val Leu Cys Pro Gln Gly Leu Gly Arg His Gln Arg Leu
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<210> 4119
 <211> 649
 <212> DNA
 <213> Homo sapiens

<400> 4119
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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 Met Leu Ser Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
 65 70 75 80
 Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
 85 90 95
 His Ser Leu His
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

<400> 4121
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 2490

<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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 35 40 45
 Ser Lys Pro Gly Pro Asp Pro Leu Asp Thr Arg Arg Leu Gln Gly Phe
 50 55 60
 Arg Leu Glu Glu Tyr Leu Ile Gly Gln Ser Ile Gly Lys Gly Cys Ser
 65 70 75 80
 Ala Ala Val Tyr Glu Ala Thr Met Pro Thr Leu Pro Gln Asn Leu Glu
 85 90 95
 Val Thr Lys Ser Thr Gly Leu Leu Pro Gly Arg Gly Pro Gly Thr Ser
 100 105 110
 Ala Pro Gly Glu Gly Gln Glu Arg Ala Pro Gly Ala Pro Ala Phe Pro
 115 120 125
 Leu Ala Ile Lys Met Met Trp Asn Ile Ser Ala Gly Ser Ser Ser Glu
 130 135 140
 Ala Ile Leu Asn Thr Met Ser Gln Glu Leu Val Pro Ala Ser Arg Val

145 150 155 160
 Ala Leu Ala Gly Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg
 165 170 175
 Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg
 180 185 190
 Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
 195 200 205
 Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
 210 215 220
 Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
 225 230 235 240
 Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
 245 250 255
 Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
 260 265 270
 His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
 275 280 285
 Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
 290 295 300
 Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
 305 310 315 320
 Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
 325 330 335
 Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
 340 345 350
 Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
 355 360 365
 Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
 370 375 380
 Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
 385 390 395 400
 Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
 405 410 415
 Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
 420 425 430
 Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
 435 440 445
 Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
 450 455 460
 Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
 465 470 475 480
 Cys Gln Ala Ala Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
 485 490

<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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 720
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 780
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 960
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 1095

<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

Met	Ser	Ala	Ala	Gly	Ala	Gly	Ala	Gly	Val	Glu	Ala	Gly	Phe	Ser	Ser
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Pro	Asp	Leu	Ser	Gln	Gly	Ser	Ser	Leu	Thr	Arg	Pro	Val	Glu	Ala	Leu	
			245						250					255		
Phe	Gln	Leu	Trp	Thr	Ala	Glu	Pro	Leu	Asp	Gln	Ala	Ala	Ala	Ser	Ala	
			260					265					270			
Ser	Ala	Ile	Asp	Ile	Ser	Lys	Trp	Arg	Thr	Phe	Gln	Thr	Ala	Leu	Phe	
			275				280						285			
Leu	Asp	Arg	Leu	Leu	Asp	Gly	Ser	Pro	Leu	Pro	Gln	Glu	Val	Val	Met	
	290					295					300					
Ser	Leu	Ser	Lys	Cys	Tyr	Ser	Ser	Leu	Leu	Asp	Ser	Met	Asn	Ala	Glu	
305					310					315					320	
Ile	Arg	Ile	Arg	Trp	Leu	Gln	Ile	Val	Val	Arg	Asn	Asp	Tyr	Trp	Pro	
			325						330					335		
Asp	Leu	His	Arg	Val	Arg	Arg	Phe	Leu	Glu	Ser	Gln	Met	Ser	Arg	Met	
			340					345					350			
Tyr	Thr	Ile	Pro	Leu	Tyr	Glu	Asp	Leu	Cys	Thr	Gly	Ala	Leu	Lys	Ser	
			355				360					365				
Phe	Ala	Leu	Glu	Val	Phe	Tyr	Gln	Thr	Gln	Gly	Arg	Leu	His	Pro	Asn	
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

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1560

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<210> 4130
 <211> 523
 <212> PRT
 <213> Homo sapiens

<400> 4130
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 35 40 45
 Ser Leu Glu Asp Asn Gly Ser Thr Arg Val Thr Pro Ser Val Gln Pro
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 His Leu Gln Pro Ile Arg Asn Met Ser Val Ser Arg Thr Met Glu Asp
 65 70 75 80
 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val
 85 90 95
 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg
 100 105 110
 Glu Val Ala Gln Met Leu Lys Ser Lys His Gly Gly Asn Tyr Leu Leu
 115 120 125
 Phe Asn Leu Ser Glu Arg Arg Pro Asp Ile Thr Lys Leu His Ala Lys
 130 135 140
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys
 145 150 155 160
 Ile Cys Ser Ile Cys Lys Ala Met Asp Thr Trp Leu Asn Ala Asp Pro
 165 170 175
 His Asn Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly
 180 185 190
 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala
 195 200 205
 Asp Gln Ala Leu Asp Arg Phe Ala Met Lys Arg Phe Tyr Glu Asp Lys
 210 215 220
 Ile Val Pro Ile Gly Gln Pro Ser Gln Arg Arg Tyr Val His Tyr Phe
 225 230 235 240
 Ser Gly Leu Leu Ser Gly Ser Ile Lys Met Asn Asn Lys Pro Leu Phe
 245 250 255
 Leu His His Val Ile Met His Gly Ile Pro Asn Phe Glu Ser Lys Gly
 260 265 270
 Gly Cys Arg Pro Phe Leu Arg Ile Tyr Gln Ala Met Gln Pro Val Tyr
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 Thr Ser Gly Ile Tyr Asn Ile Pro Gly Asp Ser Gln Thr Ser Val Cys
 290 295 300
 Ile Thr Ile Glu Pro Gly Leu Leu Lys Gly Asp Ile Leu Leu Lys

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305          310          315          320
Cys Tyr His Lys Lys Phe Arg Ser Pro Ala Arg Asp Val Ile Phe Arg
          325          330          335
Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
          340          345          350
Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
          370          375          380
Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
          405          410          415
Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
          435          440          445
Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465          470          475          480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
          485          490          495
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Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
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<210> 4131

<211> 608

<212> DNA

<213> Homo sapiens

<400> 4131

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120
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240
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300
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420
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480
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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145 150 155 160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Ala Arg
165 170 175
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

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<211> 1646
<212> DNA
<213> Homo sapiens

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360

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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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180
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240

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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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		20					25					30		
Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala
	35						40				45			
Leu	Leu	Ser	Pro	Asp	Tyr	Met	Asp	Leu	Glu	Asp	Pro	Arg	Pro	Ile
	50					55				60				
Asp	Trp	Met	Gln	Ile	Ile	Arg	Lys	Arg	Ala	Val	Val	Tyr	Val	Gly
65				70					75					80
Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser
			85						90				95	
Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly
			100					105					110	
Asp	Asp	Gly	Leu	Pro	Gly	Ala	Thr	Gly	Gly	Lys				
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<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138

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Val	Trp	Lys	Asn	Asp	Tyr	Arg	Gln	Leu	Glu	Lys	Glu	Leu	Gln	Gly	Gln
			20					25				30			
Asn	Val	Glu	Ala	Val	Asp	Pro	Arg	Gly	Arg	Thr	Leu	Leu	His	Leu	Ala
			35				40				45				
Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
	50					55				60					
Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
65				70					75					80	
Ala	Val	Ser	Thr	Gly	Asp	Pro	Glu	Met	Val	Tyr	Thr	Val	Leu	Gln	His
			85					90					95		
Arg	Asp	Tyr	His	Asn	Thr	Ser	Met	Ala	Leu	Glu	Gly	Val	Pro	Glu	Leu
			100				105					110			
Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
	115					120					125				
Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
	130				135					140					
Val	Cys	Arg	Ile	Trp	Lys	Ser	Gly	Ala	Lys	Leu	Arg	Val	Asp	Ile	Thr
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Leu	Leu	Gly	Phe	Glu	Asn	Met	Ser	Trp	Ile	Arg	Gly	Arg	Arg	Ser	Phe
			165					170						175	
Ile	Phe	Lys	Gly	Glu	Asp	Asn	Trp	Ala	Glu	Leu	Met	Glu	Val	Asn	His
			180				185					190			
Asp	Asp	Lys	Val	Val	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ser	Gln	Glu	Met
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Glu	Arg	Leu	Thr	Leu	Asp	Leu	Met	Lys	Pro	Lys	Ser	Arg	Glu	Val	Glu
	210				215					220					
Arg	Arg	Leu	Thr	Ser	Pro	Val	Ile	Asn	Thr	Ser	Leu	Asp	Thr	Lys	Asn
225				230					235					240	
Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
			245					250					255		
Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
	260					265						270			
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
	275					280					285				
Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
	290				295					300					
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305				310					315					320	
Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
			325					330					335		
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<210> 4139
<211> 431
<212> DNA
<213> Homo sapiens

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<210> 4140
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<212> PRT
<213> Homo sapiens

<400> 4140
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Val Pro
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<210> 4141
<211> 1182
<212> DNA
<213> Homo sapiens

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180

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
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Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70					75					80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
				85					90				95		
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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Ala  Gln  Val  Gln  Asn  Gly  Pro  Ser  Gln  Glu  Glu  Leu  Glu  Ile  Gln  Arg
      130          135          140
Arg  Gln  Leu  Gln  Glu  Gln  Arg  Gln  Lys  Glu  Leu  Glu  Arg  Glu  Arg
145          150          155          160
Leu  Glu  Arg  Glu  Arg  Met  Glu  Arg  Glu  Arg  Leu  Glu  Arg  Glu  Arg  Leu
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Glu  Arg  Glu  Arg  Leu  Glu  Arg  Glu  Arg  Leu  Glu  Gln  Glu  Gln  Leu  Glu
      180          185          190
Arg  Glu  Arg  Gln  Glu  Arg  Glu  Arg  Gln  Glu  Arg  Leu  Glu  Arg  Gln  Glu
      195          200          205
Arg  Leu  Glu  Arg  Gln  Glu  Arg  Leu  Glu  Arg  Gln  Glu  Arg  Leu  Asp  Arg
      210          215          220
Glu  Arg  Glu  Arg  Gln  Glu  Arg  Glu  Arg  Leu  Glu  Arg  Leu  Glu  Arg  Glu
225          230          235          240
Arg  Gln  Glu  Arg  Glu  Arg  Gln  Glu  Gln  Leu  Glu  Arg  Glu  Gln  Leu  Glu
      245          250          255
Trp  Glu  Arg  Glu  Arg  Arg  Ile  Ser  Ser  Ala  Ala  Ala  Pro  Ala  Ser  Val
      260          265          270
Glu  Thr  Pro  Leu  Asn  Ser  Val  Leu  Gly  Asp  Ser  Ser  Ala  Ser  Glu  Pro
      275          280          285
Gly  Leu  Gln  Ala  Ala  Ser  Gln  Pro  Ala  Glu  Thr  Pro  Ser  Gln  Gln  Gly
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Ile  Val  Leu  Gly  Pro  Leu  Ala
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<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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 20 25 30
 Gly Asp Glu Glu Glu Phe Phe Glu Ile Arg Thr Glu Trp Ser Asp Arg
 35 40 45
 Ser Val Leu Tyr Leu His Arg Ser Leu Ala Asp Leu Gly Arg Leu Trp

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      50              55              60
Gln Arg Leu Arg Asp Ala Phe Pro Glu Asp Arg Ser Glu Leu Ala Gln
65      70      75      80
Gly Pro Leu Arg Gln Gly Leu Val Ala Ile Lys Glu Ala His Asp Ile
      85      90      95
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
100      105      110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
115      120      125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
130      135      140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145      150      155      160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
165      170      175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
180      185      190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
195      200      205
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Phe Glu Thr Asp Ile Trp Asp
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<210> 4145

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4145

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<210> 4146

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4146

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Leu	Asp	Leu	Arg	Leu	Ile	Arg	Thr	Lys	Gly	Gly	Val	Asp	Ala	Ala	Leu
50				55				60							
Glu	Tyr	Ala	Lys	Thr	Trp	Ser	Arg	Tyr	Ala	Lys	Glu	Leu	Leu	Ala	Trp
65				70				75				80			
Thr	Glu	Lys	Arg	Ala	Ser	Tyr	Glu	Leu	Glu	Phe	Ala	Lys	Ser	Thr	Met
85				90				95							
Lys	Ile	Ala	Glu	Ala	Gly	Lys	Val	Ser	Ile	Gln	Gln	Gln	Ser	His	Met
100				105				110							
Pro	Leu	Gln	Tyr	Ile	Tyr	Thr	Leu	Phe	Leu	Glu	His	Asp	Leu	Ser	Leu
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130															

<210> 4147

<211> 4892

<212> DNA

<213> Homo sapiens

<400> 4147

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 4892

<210> 4148
 <211> 697
 <212> PRT
 <213> Homo sapiens

<400> 4148
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 35 40 45
 Glu Gln His Leu Phe Asp Val Asn Asn Ser Gly Gly Gln Ser Ser Glu
 50 55 60
 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
 65 70 75 80
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
 85 90 95
 Asp Lys Gly Leu Ile Asn Lys Glu Asn Thr Pro Ser Gly Phe Asn His
 100 105 110
 Leu Asp Asp Cys Ile Leu Asn Thr Gln Glu Val Glu Lys Val His Lys
 115 120 125
 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys
 130 135 140
 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val
 145 150 155 160
 Asn Met Glu Ser Leu Asn Ser Thr Arg Ser His Glu Arg Thr Gly Pro
 165 170 175
 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

180 185 190
 Gly Gly His Thr Gln His Phe Glu Ser Pro Thr Met Lys Ile Gln Glu
 195 200 205
 His Pro Ser Leu Ser Asp Thr Lys Gln Gln Arg Asn Gln Asp Ala Gly
 210 215 220
 Asp Gln Glu Glu Ser Phe Val Ser Glu Val Pro Gln Ser Asp Leu Thr
 225 230 235 240
 Ala Leu Cys Asp Glu Lys Asn Trp Glu Glu Pro Ile Pro Ala Phe Ser
 245 250 255
 Ser Trp Gln Arg Glu Asn Ser Asp Ser Asp Glu Ala His Leu Ser Pro
 260 265 270
 Gln Ala Gly Arg Leu Ile Arg Gln Leu Leu Asp Glu Asp Ser Asp Pro
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 Asp Asp Thr Glu Val Pro Pro Ser Pro Pro Asn Ser His Ser Phe Met
 305 310 315 320
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 325 330 335
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 385 390 395 400
 Ser Glu Glu Asp Leu Thr Pro Arg Met Arg Gln Arg Ser Asn Thr Leu
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 Pro Lys Ser Phe Gly Ser Gln Leu Glu Lys Glu Asp Glu Lys Lys Gln
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 435 440 445
 Ser Ile Gln Arg Lys Leu Gln Glu Lys Arg Ala Glu Ser Ser Arg Pro
 450 455 460
 Glu Asp Ile Lys Asp Met Thr Lys Asp Gln Ile Ala Asn Glu Lys Val
 465 470 475 480
 Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser Ile His Gly Arg Pro
 485 490 495
 Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro Leu Tyr Asp Arg Tyr
 500 505 510
 Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn Thr Ile Pro Ile Ile
 515 520 525
 Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu Leu Gln Pro Ile Ile
 530 535 540
 Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile Lys Glu Glu Glu Glu
 545 550 555 560
 Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp Phe Met Val Thr Leu
 565 570 575
 Lys Thr Asp Phe Ser Ala Arg Cys Phe Leu Asp Gln Phe Glu Asp Asp
 580 585 590
 Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys Ile Pro Ser Lys Cys
 595 600 605
 Ser Gln Asp Thr Gly Leu Ser Asn Leu His Ala Ala Ser Ile Pro Glu

610		615		620											
Leu	Leu	Glu	His	Leu	Gln	Glu	Met	Arg	Glu	Glu	Lys	Arg	Ile	Arg	
625				630					635					640	
Lys	Lys	Leu	Arg	Asp	Phe	Glu	Asp	Asn	Phe	Arg	Gln	Asn	Gly	Arg	
				645					650					655	
Asn	Val	Gln	Lys	Glu	Asp	Arg	Thr	Pro	Met	Ala	Glu	Glu	Tyr	Ser	Glu
				660				665					670		
Tyr	Lys	His	Ile	Lys	Ala	Lys	Leu	Arg	Leu	Leu	Glu	Val	Leu	Ile	Ser
				675				680					685		
Lys	Arg	Asp	Thr	Asp	Ser	Lys	Ser	Met							
				690				695							

<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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 120
 gatccggagg ccaggagctc aaccaccctt ctccggaaca gggccggcct gctgctgtgc
 180
 cctcgagcgt cgggtgctgt atctactccg gggcctaggt cggtccggg ggcggcttag
 240
 gagaaggccg ccggcgagat gttcaaaaac acgttcacga gcggtcttct ctccatcttc
 300
 tacagcatcg gcagcaagcc tctgcaaate tgggacaaaa aggtacggaa tggccacatc
 360
 aaaagaatca ctgataatga catccagtcc ctgggtgctag agattgaagg gacaaatgta
 420
 agcaccacat atatcacatg cctgcagac cccaagaaga cgctgggaat taaacttctt
 480
 ttccttgta tgattatcaa aaacctgaag aagtatttta cttcgaagt gcaggacta
 540
 gatgacaaga atgtgcgtcg tcgctttcgg gcaagtaact accagagcac caccggggtc
 600
 aaacccttca tctgcacat gcccatgcgg ctggatgacg gctggaacca gattcagttc
 660
 aacttgctag acttcacacg gcgagcatac ggcaccaatt acatcgagac cctcagagt
 720
 cagatccatg caaattgtcg catccgacgg gtttacttct cacagagact ctactcagaa
 780
 gatgagctgc cggcagagtt caaactgtat ctcccagttc agaacaaggc aaagcaataa
 840
 ctggaattgt gactcgaggg atagaccctt ggtatgtgact cttcttttta aaaggaaact
 900
 atgtggagga cgatgcaaaa acatatttat cttagtttgc tctgctgtag tctgtttat
 960
 tatacttggt gttgcttgc atggacacgg gtgaacatcg cgtaactctg tgactgcatt
 1020
 gtaagtgcag tgggggtaag cagtctgtgt agtggcgcgt gaacgctgga gcttattccg
 1080


```

cgcgcctgcc cagtggtggg ggagatacct ttaccatgaa cttacagaat taagatggc
1140
ccataaggaa ttccagacca atatttcttc ctgcggttta ttctatgttt tatatattat
1200
ctaaatatat gtatatgctg tgtcatactc ataactctga aatgaataaa gtgatattat
1260
cctggtttgt aaaaaaaaaa aaaaaatttg ctataaaatg agaagtctca ctgatagagg
1320
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1380
atttgaaaaa aaaaaa
1396

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<210> 4150
<211> 193
<212> PRT
<213> Homo sapiens
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400> 4150																	
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1				5					10					15			
Ile	Gly	Ser	Lys	Pro	Leu	Gln	Ile	Trp	Asp	Lys	Lys	Val	Arg	Asn	Gly		
			20					25					30				
His	Ile	Lys	Arg	Ile	Thr	Asp	Asn	Asp	Ile	Gln	Ser	Leu	Val	Leu	Glu		
		35				40						45					
Ile	Glu	Gly	Thr	Asn	Val	Ser	Thr	Thr	Tyr	Ile	Thr	Cys	Pro	Ala	Asp		
	50					55					60						
Pro	Lys	Lys	Thr	Leu	Gly	Ile	Lys	Leu	Pro	Phe	Leu	Val	Met	Ile	Ile		
65				70						75					80		
Lys	Asn	Leu	Lys	Lys	Tyr	Phe	Thr	Phe	Glu	Val	Gln	Val	Leu	Asp	Asp		
			85						90					95			
Lys	Asn	Val	Arg	Arg	Arg	Phe	Arg	Ala	Ser	Asn	Tyr	Gln	Ser	Thr	Thr		
		100						105					110				
Arg	Val	Lys	Pro	Phe	Ile	Cys	Thr	Met	Pro	Met	Arg	Leu	Asp	Asp	Gly		
		115					120					125					
Trp	Asn	Gln	Ile	Gln	Phe	Asn	Leu	Leu	Asp	Phe	Thr	Arg	Arg	Ala	Tyr		
	130				135							140					
Gly	Thr	Asn	Tyr	Ile	Glu	Thr	Leu	Arg	Val	Gln	Ile	His	Ala	Asn	Cys		
145				150						155					160		
Arg	Ile	Arg	Arg	Val	Tyr	Phe	Ser	Asp	Arg	Leu	Tyr	Ser	Glu	Asp	Glu		
			165						170					175			
Leu	Pro	Ala	Glu	Phe	Lys	Leu	Tyr	Leu	Pro	Val	Gln	Asn	Lys	Ala	Lys		
			180						185				190				
Gln																	

```
<210> 4151
<211> 1372
<212> DNA
<213> Homo sapiens
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<400> 4151
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60

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 120
 cgccagcacc ctccccagat gaaaacacca gcaccaggag gtggggccgta gccccaggctg
 180
 agggaggagg ctgggggctg gggctcaggg cccccccgg gccacagcgc caccctgagt
 240
 gggcctgaaa atagtgcaca gtgctgggta ctgccccggc tggaggcacc tagttgttga
 300
 gcattccggc cacaggccac ccgctggccc ttcttgggtg tggcacgaga ccacggggac
 360
 ttgcaggagc tccctgcatg ctgttttggg ctttgggtctc agggagcacc ctctacctc
 420
 ggggtcccg agtgggcagc cgggcagggt tgaacagtgt gacaagggta ccgtggggca
 480
 cctggtatg ccaaccaga ggggcagccg gtgctcctgg tgggtgggca gcaacagtta
 540
 caaactcacc ccaagtccaa accccagaaa tctgtttct ctggccctcc gggccagaa
 600
 tgccctgcac tgctcctgg cctcaggggc tgctgcggtg gtgggaaggc tgcccagcag
 660
 tgagggaaggc gagtgcaggg gctgcggcgg cggtcagaga aggagagaca ccagcagagg
 720
 acgcgaagct ggaccggcca gggtcagagc ccgcctcggg tgctcccaat cagaatctgc
 780
 tttgtgctcc acggcctcca agcaatttca tgagcgttct gctcctacgt ggccaggctc
 840
 taccttccct gacggtcttg gccaggccag ctoggtttcc ctctaaccga tgaggcctgg
 900
 ggggggctgt acagaggctg gaaccgggc cagagcccg gggcaggccc gcctggctac
 960
 agcaggatga ggctgggggtg gcgcagctgc cgggtacacct gtacagcct ctgggcgggtg
 1020
 gcacaggagc tggcctcatc ctccgtgcag agccggctgc gcagggtctg cactcccgc
 1080
 agcagtgtct cgtggttggc gtggatctgg cggagggtact gcacacggag atcaggagcg
 1140
 ctggagccct gggcggcctg ctctgtcacc atcgtctgca tgcgcccgc aacggcatgg
 1200
 tgcgccctgc aaatgtcggc cagagaggag ctttccactt gaatctccac ggcctgggatg
 1260
 gcgctgctgg gcacaggctg gtcattggcca cctctcggac gatgagggtga acgttggcgc
 1320
 catcaggggc cactccctgg atggaagata gtgctcgggc cctcacgacg tc
 1372

<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

Met Pro Cys Thr Ala Ser Trp Pro Gln Gly Leu Leu Arg Trp Trp Glu
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 Gly Cys Pro Ala Val Arg Lys Ala Ser Ala Gly Ala Ala Ala Val

```

                20                25                30
Arg Glu Gly Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
    35                40                45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Cys Ala Pro
    50                55                60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Arg Gly Gln Val
    65                70                75                80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
    85                90                95
Pro

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<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

```

<400> 4153
tgatcagacc tgagtgaaca gaaggaaaga gcattttacc gatgggtatca actgcttggg
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aaatcctccg attggcaaga aaggccttga ttctctcttt tatcacactg ctgtccctcc
120
tcattaatcc ttccacttta tcattttacat ctagggtctcc ttctgaggct tcaaaactgt
180
atgacctctg acccatgctg ttgcatgga agcgagttgg tgacatcttt ccattggatg
240
tagataatcg ctcattatcc tccctcccat ttgattggt agtgcaaggc tgtggggaag
300
tatcataact gttgctaggt gacgggggaca ttcccgaaatg ctgcgtctgt gtggaagctg
360
tagctgtaga ggaagatgct gggacattgt tagtn
395

```

<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

```

<400> 4154
Met Ser Pro Ser Pro Ser Asn Ser Tyr Asp Thr Ser Pro Gln Pro Cys
1      5      10      15
Thr Thr Asn Gln Asn Gly Arg Glu Asn Asn Glu Arg Leu Ser Thr Ser
    20      25      30
Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
    35      40      45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
    50      55      60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
    65      70      75      80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
    85      90      95
Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
    100     105     110

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<210> 4155
<211> 1191
<212> DNA
<213> Homo sapiens

<400> 4155
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gggagacaaa ggggaccggt tcctctctag gcgcccaagat gtggatacag gtgcgacca
120
ttgatggctc caagacgtgc accattgagg acgtgtctcg caaagccacg attgaggagc
180
tgcgcgagcg ggtgtggcg ctgttcgacg tgcggcccg atgccagcgc ctcttctacc
240
ggggcaagca gttggaaat ggatatacct tatttgatta tgatgttga ctgaatgata
300
taattcagct gctagtctgc ccagaccctg atcatcttcc tggcacatct acacagattg
360
aggctaaacc ctgttcta atgtccaccta aagtaaagaa agctccgagg gtaggacctt
420
ccaatcagcc atctacatca gctcgtgcc gtcttattga tcctggcttt ggaatatata
480
agatacccg aaagcggtag tctagaaatg aatgtcaagg atcttagacc acgagctaga
540
accattttga aatggaatga actaaatgtt ggtgatgtgg taatggttaa ttataatgta
600
gaaagtcctg gacaaagg attctggctt gatgcagaaa ttaccacatt gaagacaatc
660
tcaaggacca aaaaagaact tcgtgtgaaa atttctcctg ggggttctga aggaacatta
720
aatgactgca agataatgc tgtagatgaa atcttcaaga ttgagagacc tggagcccat
780
cccctttcat ttgcagatgg aaagttttta aggcgaaatg accctgaatg tgacctgtgt
840
ggtggagacc cagaaaagaa atgtcattct tgctcctgtc gtgtatgtgg tgggaaacat
900
gaaccaaca tgcagcttct gtgtgatgaa tgtaatgtgg cttatcatat ttactgtctg
960
aatccacctt tggataaagt ccagaagag gaatactggt attgtccttc ttgtaaaact
1020
gattccagtg aagtgtgaaa ggctggtgaa agactcaaga tgagtaaaaa gaaagcaag
1080
atgccgtcag ctagtactga aagccgaaga gactgaggca ggggagggga ggggagggaa
1140
tgaggcagct ctaggatcta tactgtagct aataaaatgt aaaaacacct g
1191

<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
Asp Leu Pro Ile Ser His Leu His Gln Leu Val Pro Val Leu Leu Ile

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      1           5           10           15
Leu Ala Leu Glu Tyr Ile Arg Tyr Pro Glu Ser Gly Thr Leu Glu Met
      20           25           30
Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn
      35           40           45
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser
      50           55           60
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys
      65           70           75           80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly
      85           90           95
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu
      100           105           110
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp
      115           120           125
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly
      130           135           140
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly
      145           150           155           160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala
      165           170           175
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu
      180           185           190
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val
      195           200           205
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro
      210           215           220
Ser Ala Ser Thr Glu Ser Arg Arg Asp
      225           230

```

<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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120
gaggatgagt ttgaggagac actccaggag gcttcagggc acctgggcag atacaggggtg
180
attggcagga tgttttaggag ggaggagaac gccccaggca ttctactgga gctggcacaa
240
gatatcgact atgctttgct cccaagggaa ataccaggaa agggggggcc ctgggaagtg
300
attgtaaaac cccgtaactc agatggggaa tttctcaaca gactgaacgc cttcttagag
360
gaggagaggg ggaccgtgtc agatatgaac cgagtcctcg ggtcggaacac caattgttcg
420
gctccaagag tgactatatc accagagttc tggacctggg cccgactctt gggggcagca
480
gtgcagcctc tgctagaaca aatgtgttac cgagaactaa gagtgttttc tgggaacacc
540

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atatccatcc cagggtgcaact ggccctttgat gcctggccttg agcacaccac tgagatgcta
600
cagatgtggc aggtgccccg gggggaaaag aggcggaggc tgatggaatg cttacggggc
660
cctgtctctcc aggtggtcag tgggtctccg gccagcaatg cttccataac tgtggaggag
720
tgccctggctg ccttgcaagc ggtgttcgga cctgtggaga gccataaaat tgcccagggtg
780
aagttgtgta aagccatca ggaggcagga gaaaaagtat ctacttttgt gttacgtttg
840
gaaccctctg tccaaagagc ttagaaaaac aatgtggtat cacgtagaaa cgtgaatcag
900
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960
aagctgatga aacagcgaag gaagcctcct ggttccctg ccctgggtgaa gctcctgcgt
1020
gaggaggagg aatgggaggc cactttaggt ccagataggg agagtctgga ggggctggaa
1080
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1140
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1200
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1260
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1320
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1500
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1560
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1620
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1680
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1740
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1800
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1860
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2040
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gagaagacc ccagcagggg tactgggtac ccggcaggcc agtcgccca cagttgactt
2160

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 2640
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 3060
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 3240
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 3300
 ctacaggaga gggggcccg gacctgtgtg ggacctgtgt cctgtgtgtg ccgtttgcag
 3360
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 3420
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 3460

<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

Met Pro Leu Thr Leu Leu Gln Asp Trp Cys Arg Gly Glu His Leu Asn

1

5

10

15

Thr Arg Arg Cys Met Leu Ile Leu Gly Ile Pro Glu Asp Cys Gly Glu

```

      20      25      30
Asp Glu Phe Glu Glu Thr Leu Gln Glu Ala Cys Arg His Leu Gly Arg
      35      40      45
Tyr Arg Val Ile Gly Arg Met Phe Arg Arg Glu Glu Asn Ala Gln Ala
      50      55      60
Ile Leu Leu Glu Leu Ala Gln Asp Ile Asp Tyr Ala Leu Leu Pro Arg
      65      70      75      80
Glu Ile Pro Gly Lys Gly Gly Pro Trp Glu Val Ile Val Lys Pro Arg
      85      90      95
Asn Ser Asp Gly Glu Phe Leu Asn Arg Leu Asn Arg Phe Leu Glu Glu
      100      105      110
Glu Arg Arg Thr Val Ser Asp Met Asn Arg Val Leu Gly Ser Asp Thr
      115      120      125
Asn Cys Ser Ala Pro Arg Val Thr Ile Ser Pro Glu Phe Trp Thr Trp
      130      135      140
Ala Gln Thr Leu Gly Ala Ala Val Gln Pro Leu Leu Glu Gln Met Leu
      145      150      155      160
Tyr Arg Glu Leu Arg Val Phe Ser Gly Asn Thr Ile Ser Ile Pro Gly
      165      170      175
Ala Leu Ala Phe Asp Ala Trp Leu Glu His Thr Thr Glu Met Leu Gln
      180      185      190
Met Trp Gln Val Pro Glu Gly Glu Lys Arg Arg Arg Leu Met Glu Cys
      195      200      205
Leu Arg Gly Pro Ala Leu Gln Val Val Ser Gly Leu Arg Ala Ser Asn
      210      215      220
Ala Ser Ile Thr Val Glu Glu Cys Leu Ala Ala Leu Gln Gln Val Phe
      225      230      235      240
Gly Pro Val Glu Ser His Lys Ile Ala Gln Val Lys Leu Cys Lys Ala
      245      250      255
Tyr Gln Glu Ala Gly Glu Lys Val Ser Ser Phe Val Leu Arg Leu Glu
      260      265      270
Pro Leu Leu Gln Arg Ala Val Glu Asn Asn Val Val Ser Arg Arg Asn
      275      280      285
Val Asn Gln Thr Arg Leu Lys Arg Val Leu Ser Gly Ala Thr Leu Pro
      290      295      300
Asp Lys Leu Arg Asp Lys Leu Lys Leu Met Lys Gln Arg Arg Lys Pro
      305      310      315      320
Pro Gly Phe Leu Ala Leu Val Lys Leu Leu Arg Glu Glu Glu Glu Trp
      325      330      335
Glu Ala Thr Leu Gly Pro Asp Arg Glu Ser Leu Glu Gly Leu Glu Val
      340      345      350
Ala Pro Arg Pro Pro Ala Arg Ile Thr Gly Val Gly Ala Val Pro Leu
      355      360      365
Pro Ala Ser Gly Asn Ser Phe Asp Ala Arg Pro Ser Gln Gly Tyr Arg
      370      375      380
Arg Arg Arg Gly Arg Gly Gln His Arg Arg Gly Val Ala Arg Ala
      385      390      395      400
Gly Ser Arg Gly Ser Arg Lys Arg Lys Arg His Thr Phe Cys Tyr Ser
      405      410      415
Cys Gly Glu Asp Gly His Ile Arg Val Gln Cys Ile Asn Pro Ser Asn
      420      425      430
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Ala	Pro	Leu	Pro	Gln	Lys	Val	Pro	Pro	Thr	Thr	Ala	Val	Glu	Ala	Thr	Ala	Pro	Leu	Pro	Gln	Lys	Val	Pro	Pro	Thr	Thr	Ala	Val	Glu	Ala	Thr	Ala	Pro	Leu	Pro	Gln	Lys	Val	Pro	Pro	Thr	Thr	Ala	Val	Glu	Ala	Thr
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Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln
        740                745                750
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu
        755                760                765
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser
        770                775                780
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser
785                790                795                800
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly
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Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val
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His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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 35 40 45
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
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 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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<211> 717

<212> DNA

<213> Homo sapiens

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<211> 166
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<213> Homo sapiens

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Arg Arg Thr Gly Gln Tyr Lys Gly Leu Leu Asp Cys Ala Arg Arg Ile
35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
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Ser Arg Asn Ser Pro Ala Phe Ser Leu Pro Thr Cys Trp Asp Tyr Arg
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Lys Pro Val Val Met Pro
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<213> Homo sapiens

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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
			35					40				45			
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
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Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
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Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
				85					90					95	
Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
			100					105				110			
Leu	Arg	Thr	Asp	Tyr	Asn	Glu	Pro	Gly	Thr	Ile	Pro	Ser	Ala	Ala	Arg
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Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
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Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
			210					215				220			
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
225					230					235					240
Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<211> 900

<212> PRT

<213> Homo sapiens

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
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Leu	Gly	Ala	Leu	Glu	Pro	Leu	Pro	Pro	Ala	Pro	Gly	Asp	Thr	Gly	Val
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
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Ile	Cys	Phe	Pro	Asp	Ser	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe	
		115				120					125				
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Lys	Ala	Gly	Pro	Pro	Glu	Asp	Glu	Gly	Asp	Pro	Lys	Ala	Gly	Ala	Gly
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Pro	Pro	Pro	Gly	Pro	Pro	Ala	Tyr	Asp	Pro	Tyr	Gly	Pro	Tyr	Cys	Pro
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Gly	Arg	Ala	Ser	Gly	Ala	Gly	Pro	Glu	Thr	Pro	Gly	Leu	Gly	Leu	Asp
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Pro	Pro	Pro	Pro	Pro	Pro	Ala	Pro	Ala	Ser	Glu	Pro	Lys	Gly	Gly	Leu
					230				235						240
Thr	Ser	Pro	Ile	Phe	Cys	Ser	Thr	Lys	Pro	Lys	Lys	Leu	Leu	Lys	Thr
				245				250						255	
Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
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Lys	Lys	Leu	Tyr	Ala	Gln	Glu	Tyr	Glu	Phe	Glu	Ala	Asp	Glu	Asp	Lys
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      340              345              350
Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
      355              360              365
Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
      370              375              380
Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu
385              390              395              400
Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly
      405              410              415
Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
      420              425              430
Asn Ser Leu Asp Ser Ser Leu Thr Arg Glu Lys Ile Glu Ala Lys Ile
      435              440              445
Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala
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Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
465              470              475              480
Gln Ala Gly Leu Thr Pro Pro Leu Ser Pro Pro Lys Ser Val Pro Pro
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Ser Val Pro Ala Arg Gly Leu Gln Pro Gln Pro Pro Ala Thr Pro Ala
      500              505              510
Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
      515              520              525
Glu Ala Ala Glu Ser Glu Gly Leu Gly Leu Gly Cys Pro Ser Pro Cys
      530              535              540
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Ala Met Pro Ser Pro Pro Pro Pro Pro Pro Pro Ala Ala Ala Pro Leu
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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 Val Phe Ile Leu Pro Leu Asp Val Ser Thr Thr Ile Tyr Asn Arg Cys
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 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
 65 70 75 80
 Asp Cys Ala Thr Ala Asn Pro Val Pro Ser Gln His Pro Cys Phe Lys
 85 90 95
 Pro Trp Ser Tyr Ile Pro Asp Gly Ile Met Pro Ile Phe Trp Arg Val
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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
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His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
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<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<210> 4178

<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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      20          25          30
Ala Ala His Leu Asp Asn Gln Val Pro Val Glu Ser Pro Arg Ala Ile
      35          40          45
Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
      50          55          60
Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
65          70          75          80
His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
      85          90          95
Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
      100          105          110
Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
      115          120          125
Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
      130          135          140
Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu
145          150          155          160
Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
      165          170          175
Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
      180          185          190
Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
      195          200          205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
      210          215          220
Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val
225          230          235          240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
      245          250          255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
      260          265          270
Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
      275          280          285
Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
      290          295          300
Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
305          310          315          320
Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
      325          330          335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
      340          345          350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
      355          360          365
Glu Lys Ala Pro Thr Glu Glu Gly Lys Lys Glu Leu Leu Phe Leu Ser
      370          375          380
Asn Ala Asn Pro Ser Leu Leu Glu Arg His Cys Ala Tyr Leu
385          390          395

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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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 35 40 45
 Val Leu Ala Thr Gly Ser Gly Ile Val Ile Ile Arg Ser Cys Asp Asp
 50 55 60
 Val Ile Thr Gly Arg His Trp Leu Ala Arg Glu Tyr Val Trp Phe Leu
 65 70 75 80
 Ile Pro Tyr Met Ile Tyr Asp Ser Tyr Ala Met Tyr Leu Cys Glu Trp
 85 90 95
 Cys Arg Thr Arg Asp Gln Asn Arg Ala Pro Ser Leu Thr Leu Arg Asn
 100 105 110
 Phe Leu Ser Arg Asn Arg Leu Met Ile Thr His His Ala Val Ile Leu
 115 120 125
 Phe Val Leu Val Pro Val Ala Gln Arg Leu Arg Gly Asp Leu Gly Asp
 130 135 140
 Phe Phe Val Gly Cys Ile Phe Thr Ala Glu Leu Ser Thr Pro Phe Val
 145 150 155 160
 Ser Leu Gly Arg Val Leu Ile Gln Leu Lys Gln Gln His Thr Leu Leu
 165 170 175
 Tyr Lys Val Asn Gly Ile Leu Thr Leu Ala Thr Phe Leu Ser Cys Arg

	180		185		190
Ile Leu	Leu Phe Pro Phe Met Tyr Trp Ser Tyr Gly Arg Gln Gln Gly				
	195		200		205
Leu Ser Leu Leu Gln Val Pro Phe Ser Ile Pro Phe Tyr Cys Asn Val					
	210		215		220
Ala Asn Ala Phe Leu Val Ala Pro Gln Ile Tyr Trp Phe Cys Leu Leu					
225	230		235		240
Cys Arg Lys Ala Val Arg Leu Phe Asp Thr Pro Gln Ala Lys Lys Asp					
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Gly

<210> 4181
 <211> 735
 <212> DNA
 <213> Homo sapiens

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 180
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 360
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 420
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 480
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 540
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 735

<210> 4182
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 4182
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Ala	His	Phe	Ser	Ala	Lys	Glu	Ala	Gly	Asp	Leu	Ser	Thr	Leu	Phe	Asp				
35										40					45				
Val	Gly	Gly	Ile	Ile	Gly	Gly	Ile	Val	Ala	Gly	Leu	Val	Ser	Asp	Tyr				
50										55					60				
Thr	Asn	Gly	Arg	Ala	Thr	Thr	Cys	Cys	Val	Met	Leu	Ile	Leu	Ala	Ala				
65										70					75				
Pro	Met	Met	Phe	Leu	Tyr	Asn	Tyr	Ile	Gly	Gln	Asp	Gly	Ile	Ala	Ser				
85										90					95				
Ser	Ile	Val	Met	Leu	Ile	Ile	Cys	Gly	Gly	Leu	Val	Asn	Gly	Pro	Tyr				
100										105					110				
Ala	Xaa	Ile	Thr	Thr	Ala	Val	Ser	Ala	Asp	Leu	Gly	Thr	His	Lys	Ser				
115										120					125				
Leu	Lys	Gly	Asn	Ala	Lys	Ala	Leu	Ser	Thr	Val	Thr	Ala	Ile	Ile	Asp				
130										135					140				
Gly	Thr	Gly	Ser	Ile	Gly	Ala	Ala	Leu	Gly	Pro	Leu	Leu	Ala	Gly	Leu				
145										150					155				
Ile	Ser	Pro	Thr	Gly	Trp	Asn	Asn	Val	Phe	Tyr	Met	Leu	Ile	Ser	Ala				
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<210> 4183

<211> 1129

<212> DNA

<213> Homo sapiens

<400> 4183

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240	ttttgtgaca	actgaagtgt	tctgttgtaa	aacaggcact	tgatttctgt	gaaggaatgc
300	tgtttgttct	tgtctgcgaca	aacattgagc	agcattaagt	gggcgggttta	cgctctgtgg
360	agtaatgggt	gtttttgaag	tctgtccttg	atactgcaca	ttaaaaggaa	tatcattttc
420	tgaacatttg	ctattttcca	taccagatag	catatcctct	tgtctgtcca	tatccgaaga
480	cccttacacga	gaaagttcta	atgtaagttt	agtagagtcc	ttggatggag	aactaattat
540	atcatatcatt	gcgcgttttc	cactctgctc	tttttcatcc	ttgcctaatt	tcattttctt
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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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		20						25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35					40					45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
		50				55					60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
					70					75				80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
				85				90						95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
			115				120					125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
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Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
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Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
				165					170					175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
			180					185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
			195				200					205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
		210				215					220				
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
					230					235				240	
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
				245					250					255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
				260				265					270		
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Leu Gln Gln Asn Thr Ser Val Ala Thr Lys Gln Pro Gln Thr Ser Val		
305	310	315
Val Gln Asn Gln Gln Gln Ile Ser Gln Gln Gly Pro Ile Tyr Asp Glu		
325	330	335
Val Glu Leu Asp Ala Leu Ala Glu Ile Glu Arg Ile Glu Arg Glu Ser		
340	345	350
Ala Ile Glu Arg Glu Arg Phe Ser Lys Glu Val Gln Asp Lys Asp Lys		
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Pro Leu Lys Lys Lys Lys		
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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1020

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<210> 4186
 <211> 385
 <212> PRT
 <213> Homo sapiens

<400> 4186
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 35 40 45
 Thr Ile Asp Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val
 50 55 60
 Glu Asn Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe
 65 70 75 80
 Asp Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu
 85 90 95
 Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Ala
 100 105 110
 Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu Lys Val
 115 120 125
 Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly Ile Val Gly
 130 135 140
 Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg Ser Leu Trp Arg
 145 150 155 160
 Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro Glu Ser Ala Ile Lys
 165 170 175
 Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu Val Gly Ser Asp Gln Glu
 180 185 190
 Thr Leu Arg Ile His Glu Arg Leu Val Ala Gly Ser Leu Ala Gly Ala
 195 200 205
 Ile Ala Gln Ser Ser Ile Tyr Pro Met Glu Val Leu Lys Thr Arg Met
 210 215 220
 Ala Leu Arg Lys Thr Gly Gln Tyr Ser Gly Met Leu Asp Cys Ala Arg
 225 230 235 240
 Arg Ile Leu Ala Arg Glu Gly Val Ala Ala Phe Tyr Lys Gly Tyr Val

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 960
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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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		20						25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
		35					40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55					60				
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
	65				70				75					80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85						90				95		
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
		115					120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
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Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
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<212> DNA

<213> Homo sapiens

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<211> 523

<212> PRT

<213> Homo sapiens

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Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln
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<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<213> Homo sapiens

<400> 4192

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<212> DNA

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<210> 4194

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4194

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Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
 65             70             75             80
Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85             90             95
Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
100            105            110
Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
115            120            125
Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
130            135            140
Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
145            150            155            160
Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
165            170            175
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245            250            255
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275            280            285
Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
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Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
305            310            315            320
Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
325            330            335
Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys
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Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys	Gln Asp Ser Thr	Asp Thr
385	390	395
Glu Ser Asn Asn Glu Glu Gln Arg Ser Gly	Leu Ile Tyr Leu Thr	Asn
405	410	415
His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys	Glu Glu His	
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Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser	Gln Asp Ala	
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Leu Arg Val Val Ser Thr Ser Gly Glu Gln Met Lys	Val Tyr Lys Cys	
450	455	460
Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr	Ile His	
465	470	475
Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met	Cys Gly	
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Glu His Arg Phe His Met Ser		
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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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			20					25				30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu
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Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly
			50				55				60			
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro
			65				70				75			80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly
			85						90				95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys
			100					105				110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln
			115				120					125		
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr
			130				135				140			
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln
			145				150			155				160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu
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Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly
			180					185					190	
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			195				200				205			
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu
			210				215				220			
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val
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Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu

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Gly	Ile Gln Thr	Gly Tyr Thr	Arg Thr Gly Ser	Ile Phe Leu	Ala Gln
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<210> 4199

<211> 1769

<212> DNA

<213> Homo sapiens

<400> 4199

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<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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 Met Ile Pro Thr Val Gly Phe Asn Met Arg Lys Val Thr Lys Gly Asn
 50 55 60
 Val Thr Ile Lys Ile Trp Asp Ile Gly Gly Gln Pro Arg Phe Arg Ser
 65 70 75 80
 Met Trp Glu Arg Tyr Cys Arg Gly Val Asn Ala Ile Val Tyr Met Ile
 85 90 95
 Asp Ala Ala Asp Arg Glu Lys Ile Glu Ala Ser Arg Asn Glu Leu His
 100 105 110
 Asn Leu Leu Asp Lys Pro Gln Leu Gln Gly Ile Pro Val Leu Val Leu
 115 120 125
 Gly Asn Lys Arg Asp Leu Pro Gly Ala Leu Asp Glu Lys Glu Leu Ile
 130 135 140
 Glu Lys Met Asn Leu Ser Ala Ile Gln Asp Arg Glu Ile Cys Cys Tyr
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<210> 4201
 <211> 917
 <212> DNA
 <213> Homo sapiens

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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 4202
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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

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Leu	Thr	Gly	Ile	Ala	Ser	Leu	Val	Leu	Leu	Gly	Leu	Trp	Asp	Tyr	Leu
			100					105					110		
Asn	Glu	Ala	Ala	Ile	Thr	Thr	Phe	Ser	Val	Leu	Gly	Leu	Phe	Ser	Ser
			115					120					125		
Gln	Ala	Ala	Ala	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ala	Glu	Val	Ile	Pro
			130					135				140			
Thr	Thr	Val	Arg	Gly	Arg	Gly	Leu	Gly	Leu	Ile	Met	Ala	Leu	Gly	Ala
			145					150				155			160
Leu	Gly	Gly	Leu	Ser	Gly	Pro	Ala	Gln	Arg	Leu	His	Met	Gly	His	Gly
			165					170					175		
Ala	Phe	Leu	Gln	His	Val	Val	Leu	Ala	Ala	Cys	Ala	Leu	Leu	Cys	Ile
			180					185					190		
Leu	Ser	Ile	Met	Leu	Leu	Pro	Glu	Thr	Lys	Arg	Lys	Leu	Leu	Pro	Glu
			195					200				205			
Val	Leu	Arg	Asp	Gly	Glu	Leu	Cys	Arg	Arg	Pro	Ser	Leu	Leu	Arg	Gln
			210					215				220			
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<210> 4203

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 4203

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<210> 4204

<211> 80

<212> PRT

<213> Homo sapiens

<400> 4204

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			20					25					30		
Tyr	Thr	Val	Val	Pro	Phe	Val	Leu	Leu	Ser	Ile	Lys	Pro	Ser	Leu	Thr
		35					40				45				
Phe	Tyr	Ser	Ser	Trp	Tyr	Tyr	Cys	Leu	His	Ile	Leu	Gly	Ile	Leu	Val
	50				55					60					
Leu	Leu	Leu	Leu	Pro	Val	Lys	Lys	Asn	Ser	Lys	Lys	Lys	Glu	Tyr	Thr
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<210> 4205

<211> 6523

<212> DNA

<213> Homo sapiens

<400> 4205

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<211> 829

<212> PRT

<213> Homo sapiens

<400> 4206

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Ser Val Ile Val Glu Val Arg Ser Asp Asp Asp Lys Asp Glu Asp Thr			
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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met			
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Met Thr Arg Gly Asn Leu Gly Leu Leu Glu Gln Ala Ile Ala Leu Lys			
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Ala Glu Gln Val Arg Thr Val Cys Glu Pro Gly Cys Pro Pro Ala Glu			
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Gln Ser Gln Leu Gly Leu Gly Glu Pro Gly Lys Ala Ala Lys Pro Leu			
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Asp Thr Val Arg Lys Ser Tyr Tyr Ser Lys Asp Pro Ser Arg Ala Glu			
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Lys Arg Glu Ile Lys Cys Pro Thr Pro Gly Cys Asp Gly Thr Gly His			
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Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser Gly Cys Pro His			
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Lys Asp Arg Ile Pro Pro Glu Ile Leu Ala Met His Glu Asn Val Leu			
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Lys Cys Pro Thr Pro Gly Cys Thr Gly Gln Gly His Val Asn Ser Asn			
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Arg Asn Thr His Arg Ser Leu Ser Gly Cys Pro Ile Ala Ala Ala Glu			
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Ser Lys Val Thr Phe Asp Tyr Ala Ser Phe Asp Ala Gln Val Phe Gly			
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Lys Arg Met Leu Ala Pro Lys Ile Gln Thr Ser Glu Thr Ser Pro Lys			
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<212> DNA

<213> Homo sapiens

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<211> 193

<212> PRT

<213> Homo sapiens

<400> 4208

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<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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 Gly Glu Leu Glu Leu Arg His Glu Asn Tyr Asp Glu Ala Leu Arg Leu
 450 455 460
 Leu Arg Lys Ala Thr Ala Leu Pro Pro Gly Arg Val Phe Asp Gly
 465 470 475 480
 Ser Glu Pro Val Gln Asn Arg Val Tyr Lys Ser Leu Lys Val Trp Ser
 485 490 495
 Met Leu Ala Asp Leu Glu Glu Ser Leu Gly Thr Phe Gln Ser Thr Lys
 500 505 510
 Ala Val Tyr Asp Arg Ile Leu Asp Leu Arg Ile Ala Thr Pro Gln Ile
 515 520 525
 Val Ile Asn Tyr Ala Met Phe Leu Glu Glu His Lys Tyr Phe Glu Glu
 530 535 540
 Ser Phe Lys Ala Tyr Glu Arg Gly Ile Ser Leu Phe Lys Trp Pro Asn
 545 550 555 560
 Val Ser Asp Ile Trp Ser Thr Tyr Leu Thr Lys Phe Ile Ala Arg Tyr
 565 570 575
 Gly Gly Arg Lys Leu Glu Arg Ala Arg Asp Leu Phe Glu Gln Ala Leu
 580 585 590
 Asp Gly Cys Pro Pro Lys Tyr Ala Lys Thr Leu Tyr Leu Leu Tyr Ala
 595 600 605
 Gln Leu Glu Glu Glu Trp Gly Leu Ala Arg His Ala Met Ala Val Tyr
 610 615 620
 Glu Arg Ala Thr Arg Ala Val Glu Pro Ala Gln Gln Tyr Asp Met Phe
 625 630 635 640
 Asn Ile Tyr Ile Lys Arg Ala Ala Glu Ile Tyr Gly Val Thr His Thr
 645 650 655
 Arg Gly Ile Tyr Gln Lys Ala Ile Glu Val Leu Ser Asp Glu His Ala
 660 665 670
 Arg Glu Met Cys Leu Arg Phe Ala Asp Met Glu Cys Lys Leu Gly Glu
 675 680 685
 Ile Asp Arg Ala Arg Ala Ile Tyr Ser Phe Cys Ser Gln Ile Cys Asp
 690 695 700
 Pro Arg Thr Thr Gly Ala Phe Trp Gln Thr Trp Lys Asp Phe Glu Val
 705 710 715 720
 Arg His Gly Asn Glu Asp Thr Ile Arg Glu Met Leu Arg Ile Arg Arg
 725 730 735
 Ser Val Gln Ala Thr Tyr Asn Thr Gln Val Asn Phe Met Ala Ser Gln
 740 745 750
 Met Leu Lys Val Ser Gly Ser Ala Thr Gly Thr Val Ser Asp Leu Ala
 755 760 765
 Pro Gly Gln Ser Gly Met Asp Asp Met Lys Leu Leu Glu Gln Arg Ala

```

      770              775              780
Glu Gln Leu Ala Ala Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln
785              790              795              800
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala
      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

```

<210> 4211
 <211> 456
 <212> DNA
 <213> Homo sapiens

```

<400> 4211
ggggatcgct agcccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
60
tagttacaac agactccctg ggctactgt aggggtcaag agcagatttc cagactctca
120
agctggaaaa gagacgctcc acactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgctg gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaa tagtcagctt tgtccatgct
420
gtacggaatt tgctccacaa acccccttgc tctaga
456

```

<210> 4212
 <211> 81
 <212> PRT
 <213> Homo sapiens

```

<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1      5      10      15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

```


<210> 4213

<211> 383

<212> DNA

<213> Homo sapiens

<400> 4213

```

nacgcgtacc tgtgccagcg cgcgcgcttc ttcgcagaga acgagggcct agacgactac
60
atggaggcac gcgagggcat gcacctcaag aacgtggagt tccgtgagtt catggctggcc
120
ttcccggacc cggcccggcc gccctggtag gcctgctcgt cggccttctg ggccgcggcg
180
ctgctcacgc tgtcgtggcc gctgcgagtg ctggcogagt accgcacggc ctacgcgcac
240
taccacgtgg agaagctgtt tggcctggag ggcccgggct cggccagcag cgcaggcgggt
300
ggcctcagcc ccagcgatga gctgctgccc ccgctcaccc accgcctgcc gcggttcaac
360
acagtagaca gcacggagct cgg
383

```

<210> 4214

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4214

```

Xaa Ala Tyr      Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1              5              10              15
Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
      20              25              30
Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
      35              40              45
Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
      50              55              60
Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
      65              70              75              80
Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
      85              90              95
Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
      100              105              110
Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
      115              120              125

```

<210> 4215

<211> 939

<212> DNA

<213> Homo sapiens

<400> 4215

```

nggtacctcg gctgaataaa aattcaaaaa aacagcaatg gacaggaact tgagaagacg
60
ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgataccctt
120

```

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatccctga tccagggtt gacagaagat atggtgactg ttttaatccg ggctgcgtg
 240
 agcatgctgg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta cccccctggt cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc ctctgcata ccatggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctgggt ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat cttctgtgtc ctggggccag cgcgatgcg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcctgcgcc ttctgcgcc tcgaggctca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccacccttt gaagccctca cctctgcctg tcacccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgata ctaaacctgg gggttatgacc caagaggttg gccagctctc gcaagacatg
 900
 ggtgatgatg tataaccagca gtaccggtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1				5					10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
			35				40					45			
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
			50				55				60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
			65			70				75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
				85					90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
			115				120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
			130				135				140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

```

145             150             155             160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
                165             170             175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
                180             185             190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
                195             200             205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
                210             215             220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225             230             235             240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Ala Asp Lys Ser
                245             250             255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
                260             265             270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
                275             280             285

```

<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

```

acacacacac gcacacaaaa ctcagccaca ggctcaccag ggctctctctc aacatgcaca
60
catacacaca cacacccctc agtcataggc tcacaagagt ctctcttgctc tctctctcat
120
acatacacac acacacacaa ccagccacag gccacacaaag gtgtctctctc ctttgtccct
180
gtctgtctctc tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
240
tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacacaggg
300
tctctctcct tgtccctggc tcctctctct cgcacactcc cacacacaca catacagctc
360
agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
420
cacacacgcc tgtgcagctc cacaggggcc tggggcagga gacagatctg aatacacata
480
ccaccctgtg ctgtgagtgg ccaactccat ccaacaactg agactttctg ttactggggc
540
aaggttttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
600
cagtcctccc ctggcgcg
619

```

<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

```

      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

```

<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

```

ngcggccgcg cacctgctcc cgctgcccta cagcaagatc acgccccgcg ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctccccgc
120
ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt
180
gatcggggac agcagggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc cgaagaagac gctccaatcc
300
aggttctcag agacggagcg ttatcccagc actatccctg gacacctctt cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccctgcg gagcagcccc
420
aggggccttg gggaaccttt gagattaaa tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtcgcgcgga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttgagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtggtgtg
720
acggagcgcc tggagagcgg tgtcaacttc tgcaaggccc atctcatgat gctc
774

```

<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
 Xaa Gly Arg Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1 5 10 15
 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
 aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
 60
 tcagcccccatt ctggcacag ttctcatgca gaattattgca cccagtgtag actaacgcta
 120
 gaagcttcaa actgtataaa tttaaatgta ttgcatatt ataaaaataa agataaacat
 180
 atacatatatt tacactagtt atggaacagc aatgaacgac agtcgatccc tctttcacat
 240

ttaacagaac tgaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttctttttt
 360
 tcaagttagcg cgctccttgg aggatcacag ttctgaggtt cagggtgttaa aacatttgct
 420
 ccatgtttct gtccatgctt cccccacca cccctctccc acgtcttccc cagtctcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg ggggtgagtgc
 540
 agaggggtctg ccaggtgcaa aagatgggcc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaaag tcaactggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattgggtgc tcttaaagtc acagtttggg tacagtaaaa atgatggcat aaggaagaaga
 720
 agcactatct ttccactta attttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5				10					15		
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25				30			
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
			35				40					45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
			50			55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
			65		70					75				80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90						95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
			100				105						110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
			115				120						125		

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

atcctggacc agggctacta ctggagcg gacacaagca acgtggtacg gcaagtcctg
 60
 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctgggtttact acaaccggct gaagaactcg aagattgtca tcagtgaactt ccatctggct
 180
 aagcttagaaa atggcctcat caaggagccc tgtgggaccc cgaagatgtt tgccccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc ttccaggcaa tccaccttcc tatgaggagg tggagaaga tgattatgag
 360
 aaccatgata agaattctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtc caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgtacc acctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggctcgagc ccagtcggcc tcagccacag aactgcccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgtcca cccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5					10				15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
		50				55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70					75					80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90					95		
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
			115				120					125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
		130					135				140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

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<210> 4225

<211> 470

<212> DNA

<213> Homo sapiens

<400> 4225

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nntgtacaag aaagtgaacc agtcatcgct aatattcaag tgatggatgc aaatgataac
60
acgccaacct tccttgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacagggttc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggggagac ttcatcatca ataaaacaac agggcttacc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcggataatg ctctcctcgc aaagcaaagg actcccatct gcaactgtgta tattgaagtg
360
cttccaccaa ataatcaaag cctcctcgc tccccacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttgg tgctgtttta ttaaatctac aggcaactga
470

```

<210> 4226

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4226

```

Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1      5      10      15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20      25      30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35      40      45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50      55      60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```


65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
				85					90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
			100					105					110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
			115				120					125			
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
		130				135					140				
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
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<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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<212> PRT

<213> Homo sapiens

<400> 4228

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 Met Glu Leu Asn Ser Ile Gly Val Ile Leu Asn Met Phe Phe Lys Tyr
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 Gln Asp Ser Thr Gly Asp Asn Leu Leu Leu Lys His Leu Phe Gln Lys
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 Cys Gln Leu Ile Glu Arg Ile Leu Glu Ala Trp Glu Met Asn Glu Lys
 225 230 235 240
 Lys Gln Ala Glu Gly Gly Arg Arg His Gly Tyr Met Gly His Leu Thr
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<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala
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Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser
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Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu
					310					315				320	
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile
				325					330					335	
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe
			340					345					350		
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Met	Gly	Pro	Leu	Ala	Gly	Asp	Asn	Phe	Val	Arg	Phe	Val	Gln	Gly	Gly
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 <211> 1588
 <212> DNA
 <213> Homo sapiens

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<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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	50					55				60					
Val	Leu	Asn	Ser	Glu	Val	Leu	Glu	Gln	Arg	Lys	Val	Leu	Glu	Lys	Cys
65				70					75					80	
Asn	Arg	Val	Ser	Met	Leu	Ala	Val	Glu	Glu	Tyr	Glu	Glu	Met	Gln	Val
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			100					105					110		
Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
		115					120					125			
Phe	Gly	Arg	Gln	Ser	Ser	Ile	Leu	Asp	Gln	Gln	Leu	Ala	Leu	Asp	Glu
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Gln	Lys	Val	Lys	Glu	Leu	Glu	Glu	Gln	Leu	Glu	Asn	Glu	Thr	Leu	His
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Lys	Lys	Glu	Leu	Glu	Leu	Lys	Tyr	Gln	Asn	Ser	Glu	Glu	Lys	Ala	Arg
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<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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			20					25					30		
Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
			35				40					45			
Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
			50				55				60				
Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
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Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85						90					95	
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
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Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
			180					185					190		
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Gln	Glu	Glu	Gly	Leu	Lys	Pro	Lys	Ala	Glu	Asp	Leu	Asp	Ala	Cys	Asn
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Lys	Gln	Gln	Leu	Tyr	Asn	Glu	Glu	Met	Lys	Met	Lys	Val	Leu	Glu	Arg
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Gln	Cys	Asp	Arg	Arg	Leu	Thr	Leu	Gln	Gln	Lys	Glu	His	Glu	Gln	Lys
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Met	Gln	Leu	Leu	Leu	His	His	Phe	Lys	Glu	Gln	Asp	Gly	Glu	Gly	Ile
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 Lys Glu Leu Val Gly Glu Ala Ile Arg Arg Gln Leu Ala Ser Ser Glu
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 Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Met
 675 680 685
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 Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
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 Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
 725 730 735
 Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
 740 745 750
 Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
 755 760 765
 Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
 770 775 780
 Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
 785 790 795 800
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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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<210> 4236

<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

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 Thr Thr Thr Ile Thr Ser Gly Phe Thr Val Asn Gln Asn Gln Leu Leu
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 Ser Arg Gly Phe Glu Asn Leu Val Pro Tyr Thr Ser Thr Val Ser Val
 65 70 75 80
 Val Ala Thr Pro Val Met Thr Tyr Gly His Leu Glu Gly Leu Ile Asn
 85 90 95
 Glu Trp Asn Leu Glu Leu Glu Asp Gln Glu Lys Tyr Phe Leu Leu Gln
 100 105 110
 Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn Gly Glu
 115 120 125
 Met Ile Arg Ile Leu His Gly Glu Val Asn Lys Val Lys Leu Asp Gln
 130 135 140
 Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln Gln Glu
 145 150 155 160
 Leu Glu Phe Leu Leu Thr Tyr Leu Glu Glu Ser Thr Arg Asp Gln Ser
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<211> 560

<212> DNA

<213> Homo sapiens

<400> 4237

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 <213> Homo sapiens

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 35 40 45
 Phe Leu Asp Ser Leu Ser Cys Phe Leu Asp Ser Leu Gln Ile Ala Arg
 50 55 60
 Ala Met Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg
 65 70 75 80
 Ala Phe Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu
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<210> 4239
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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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Thr	Phe	Glu	Ala	Thr	Gln	Asp	Asp	Met	Val	Thr	Val	Pro	Lys	Ser	Pro
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Pro	Arg	Pro	Ser	Ile	Lys	Lys	Ala	Gln	Asn	Ser	Gln	Ala	Ala	Arg	Gln
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Asp	Lys														

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Thr	Ser	Ser	Gln	Gln	Ala	Arg	Ser	Tyr	Gly	Glu	Arg	Leu	Lys	Glu	Leu			
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Lys	Val	Lys	Glu	Leu	Leu	Ala	Glu	Val	Asp	Ala	Arg	Thr	Leu	Ala	Arg			
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His	Val	Thr	Lys	Val	Asp	Cys	Leu	Val	Ala	Arg	Ile	Leu	Gly	Val	Thr			
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Gln	Ala	Arg	Arg	Tyr	Glu	Lys	Phe	Asp	Lys	Val	Leu	Thr	Ala	Leu	Ser			
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 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Phe Ile Gln
 65 70 75 80
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 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
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 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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<400> 4244
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 Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
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 Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
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 Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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 Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 225 230 235 240
 Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
 245 250 255
 Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
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 Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
 305 310 315 320
 Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
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 Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
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Ser Gly Gln Met Arg Gln Leu Cys Ile Ala Met Gly Arg Ser Phe Glu		400
	405	410
Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu		415
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Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile		430
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Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys		445
	450	455
Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr		460
	465	470
Ile Ala Val Phe Tyr Ala Leu Pro Val Val Gln Leu Val Ile Thr Tyr		475
	480	485
Gln Thr Val Val Asn Val Thr Gly Asn Gln Asp Ile Cys Tyr Tyr Asn		490
	495	500
Phe Leu Cys Ala His Pro Leu Gly Asn Leu Ser Ala Phe Asn Asn Ile		505
	510	515
Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile		520
	525	530
Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp		535
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Ala Met Gly Thr Ala Leu Met Met Glu Gly Leu Leu Ser Ala Cys Tyr		565
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Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His		595
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Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile		610
	615	620
Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr		625
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Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu		640
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Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln		670
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Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly		685
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Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro		700
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Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp		745
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Arg Glu Arg Asn Asp Gln Lys Met Leu Ala Asp Leu Asp Asp Leu Asn			
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Arg Thr Lys Lys Tyr Leu Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp			
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Lys Asp Ala Leu Trp Gln Lys Ser Asp Ala Leu Glu Phe Gln Gln Lys			
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Leu Ser Ala Glu Glu Arg Trp Leu Gly Asp Thr Glu Ala Asn His Cys			
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Arg Ile Cys Gly Arg Ile Phe Cys Tyr Tyr Cys Cys Asn Asn Tyr Val			
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Leu Ser Lys His Gly Gly Lys Lys Glu Arg Cys Cys Arg Ala Cys Phe			
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Gln Lys Leu Ser Glu Gly Pro Gly Ser Pro Asp Ser Ser Gly Ser Gly			
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Thr Ser Gln Gly Glu Leu Ser Pro Ala Leu Ser Pro Ala Ser Pro Gly			
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<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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 5400
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 5460
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 5580
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<210> 4248

<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

His	Pro	Leu	Asp	Lys	Arg	Thr	Gly	Glu	Arg	Glu	Leu	Gly	Gly	Lys	Ser
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			20					25					30		
Ala	Pro	Ser	Pro	Leu	Pro	Leu	His	Thr	His	Ala	Arg	Ser	Leu	Ala	Gly
			35				40						45		
Ala	Arg	Thr	Pro	Pro	Ala	Pro	Asp	Pro	His	Leu	Gly	Gly	Arg	His	Thr
			50				55				60				
Leu	Gly	Ser	Pro	Ser	Arg	Gly	Ser	Arg	Ser	Gly	Met	Glu	Ala	Ala	Arg
					70					75				80	
Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
				85					90					95	
Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
				100				105					110		
Asp	Ala	Thr	Gly	Gly	Pro	Gly	Arg	Pro	Ala	Ala	Pro	Ala	Ser	Arg	Pro
			115				120					125			
Pro	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Arg	Ala	Val	Ala	Ser	Gln	Trp	Pro
			130				135				140				
Glu	Glu	Leu	Ala	Ser	Ala	Arg	Arg	Ala	Ala	Val	Leu	Gly	Arg	Arg	Ala
					150					155				160	
Gly	Pro	Glu	Leu	Leu	Pro	Gln	Gln	Gly	Gly	Gly	Arg	Gly	Gly	Glu	Met
				165				170						175	
Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
				180				185					190		
Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
				195			200					205			
Ala	Gln	Pro	Pro	Ile	Thr	Gln	Glu	Arg	Gly	Asp	Ala	Trp	Ala	Thr	Ala

210	215	220
Pro Ala Asp Gly Ser	Arg Gly Ser Arg	Pro Leu Ala Lys Gly Ser Arg
225	230	235
Glu Glu Val Lys Ala	Pro Arg Ala Gly Gly	Ser Ala Ala Glu Asp Leu
245	250	255
Arg Leu Pro Ser Thr	Ser Phe Ala Leu Thr	Gly Asp Ser Ala His Asn
260	265	270
Gln Ala Met Val His	Trp Ser Gly His Asn Ser	Ser Val Ile Leu Ile
275	280	285
Leu Thr Lys Leu Tyr	Asp Phe Asn Leu Gly	Ser Val Thr Glu Ser Ser
290	295	300
Leu Trp Arg Ser Thr	Asp Tyr Gly Thr Thr	Tyr Glu Lys Leu Asn Asp
305	310	315
Lys Val Gly Leu Lys	Thr Val Leu Ser Tyr	Leu Tyr Val Asn Pro Thr
325	330	335
Asn Lys Arg Lys Ile	Met Leu Leu Ser Asp	Pro Glu Met Glu Ser Ser
340	345	350
Ile Leu Ile Ser Ser	Asp Glu Gly Ala Thr	Tyr Gln Lys Tyr Arg Leu
355	360	365
Thr Phe Tyr Ile Gln	Ser Leu Leu Phe His	Pro Lys Gln Glu Asp Trp
370	375	380
Val Leu Ala Tyr Ser	Leu Asp Gln Lys Leu	Tyr Ser Ser Met Asp Phe
385	390	395
Gly Arg Arg Trp Gln	Leu Met His Glu Arg	Ile Thr Pro Asn Arg Phe
405	410	415
Tyr Trp Ser Val Ala	Gly Leu Asp Lys Glu	Ala Asp Leu Val His Met
420	425	430
Glu Val Arg Thr Thr	Asp Gly Tyr Ala His	Tyr Leu Thr Cys Arg Ile
435	440	445
Gln Glu Cys Ala Glu	Thr Thr Arg Ser Gly	Pro Phe Ala Arg Ser Ile
450	455	460
Asp Ile Ser Ser Leu	Val Val Gln Asp Glu	Tyr Ile Phe Ile Gln Val
465	470	475
Thr Thr Ser Gly Arg	Ala Ser Tyr Tyr Val	Ser Tyr Arg Arg Glu Ala
485	490	495
Phe Ala Gln Ile Lys	Leu Pro Lys Tyr Ser	Leu Pro Lys Asp Met His
500	505	510
Ile Ile Ser Thr Asp	Glu Asn Gln Val Phe	Ala Val Gln Glu Trp
515	520	525
Asn Gln Asn Asp Thr	Tyr Asn Leu Tyr Ile	Ser Asp Thr Arg Gly Ile
530	535	540
Tyr Phe Thr Leu Ala	Met Glu Asn Ile Lys	Ser Ser Arg Gly Leu Met
545	550	555
Gly Asn Ile Ile Ile	Glu Leu Tyr Glu Val	Ala Gly Ile Lys Gly Ile
565	570	575
Phe Leu Ala Asn Lys	Lys Val Asp Asp Gln	Val Lys Thr Tyr Ile Thr
580	585	590
Tyr Asn Lys Gly Arg	Asp Trp Arg Leu Leu	Gln Ala Pro Asp Val Asp
595	600	605
Leu Arg Gly Ser Pro	Val His Cys Leu Leu	Pro Phe Cys Ser Leu His
610	615	620
Leu His Leu Gln Leu	Ser Glu Asn Pro Tyr	Ser Ser Gly Arg Ile Ser
625	630	635
Ser Lys Glu Thr Ala	Pro Gly Leu Val Val	Ala Thr Gly Asn Ile Gly

[illegible]

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1075      1080      1085
His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile
1090      1095      1100
Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu
1105      1110      1115      1120
Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
1125      1130      1135
Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
1140      1145      1150
Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val
1155      1160      1165
Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln
1170      1175      1180
Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
1185      1190      1195      1200
Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
1205      1210      1215
Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
1220      1225      1230
Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
1235      1240      1245
Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
1250      1255      1260
Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
1265      1270      1275      1280
Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser
1285      1290      1295
Val

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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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120
cccagcagc aacatggtaa aattcgcaat gcctcaggca tcaaccggag agtaccaggc
180
ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg
240
accctgatat cagaaccagg agacatgggc actcagcagt tcttacaact gaatcccaat
300
ctgcaaaagt ttagtagaga catggaagac gtaaaagggg cccaagcaa gcctctagag
360
aattataaca tggtggctgg gcttggtggc tcacgcgtgt catcgacga ctttgggagg
420
ctgaggcagg aggatcgctt gagcccagga gttcaagacc agcctggacc acatagttag
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540

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ggatgagatt aac
553

<210> 4250

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4250

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Leu	Lys	Leu	Phe	Leu	Arg	Asn	Ser	Thr	Ala	Ser	Arg	Thr	Lys	Ile	Lys
			20					25					30		
Met	Ile	Tyr	Lys	Asn	Ala	Lys	Thr	Pro	Ser	Thr	Gln	His	Gly	Lys	Ile
		35					40					45			
Arg	Asn	Ala	Ser	Gly	Ile	Asn	Pro	Arg	Val	Pro	Gly	Pro	Gln	Glu	Gly
	50					55					60				
Ser	Ile	Ile	Gly	Pro	Gln	Thr	Arg	Arg	Lys	Ser	Ser	Leu	Leu	Lys	Pro
65					70					75				80	
Thr	Leu	Ile	Ser	Glu	Pro	Ala	Asp	Met	Gly	Thr	Gln	Gln	Phe	Leu	Gln
				85					90					95	
Leu	Asn	Pro	Asn	Leu	Gln	Lys	Phe	Ser	Arg	Asp	Met	Glu	Asp	Val	Lys
			100					105					110		
Gly	Thr	Pro	Ser	Lys	Pro	Leu	Glu	Asn	Tyr	Asn	Met	Leu	Ala	Gly	Leu
		115					120					125			
Gly	Gly	Ser	Arg	Val	Ser	Ser	Gln	His	Phe	Gly	Arg	Leu	Arg	Gln	Glu
	130					135					140				
Asp	Arg	Leu	Ser	Pro	Gly	Val	Gln	Asp	Gln	Pro	Gly	Pro	His	Ser	Glu
145					150					155					160
Thr	Pro	Ile	Ser												

<210> 4251

<211> 1574

<212> DNA

<213> Homo sapiens

<400> 4251

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120
gggggggggg caggccctaa ccccatctat ttcattccac agatgagggc aaccttaaga
180
gggaaggggg agatggcagg gccagcgggc gcagggaagt ccttcccacc ccaggaacct
240
gacacatctc gtctcccttc ttttcgcac tgtgggcaca aagacacttt ttcttcgca
300
ggggcgggag cccctagttc caacactgag gacgcgtgac atggggggca ccggaaggga
360
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420
cgggcccttc ccactacca ccccccccc aggtgctggg ggtcccttat ttttatgcaa
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatata
 540
 acagatcctg accctgaate tcaggagctg cagatcgggg gcacctgccc tgacatcacc
 600
 aaacgctacc tgcgcctgac ctgtgcccc gaccctgcca ccgtgcgccc tgtggcagtt
 660
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 720
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 780
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 900
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 1020
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 1080
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 1260
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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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 20 25 30
 Pro Asp Ile Thr Lys Arg Tyr Leu Arg Leu Thr Cys Ala Pro Asp Pro
 35 40 45
 Ser Thr Val Arg Pro Val Ala Val Leu Lys Lys Ser Leu Cys Met Val
 50 55 60
 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

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65              70              75              80
Met Lys Ser Ile Arg Gln Asp Leu Thr Val Gln Gly Ile Arg Thr Glu
           85           90           95
Phe Thr Val Glu Val Tyr Glu Thr His Ala Arg Ile Ala Leu Glu Lys
           100          105          110
Gly Asp His Glu Glu Phe Asn Gln Cys Gln Thr Gln Leu Lys Ser Leu
           115          120          125
Tyr Ala Glu Asn Leu Pro Gly Asn Val Gly Glu Phe Thr Ala Tyr Arg
           130          135          140
Ile Leu Tyr Tyr Ile Phe Thr Lys Asn Ser Gly Asp Ile Thr Thr Glu
           145          150          155          160
Leu Ala Tyr Leu Thr Arg Glu Leu Lys Ala Asp Pro Cys Val Ala His
           165          170          175
Ala Leu Ala Leu Arg Thr Ala Trp Ala Leu Gly Asn Tyr His Arg Phe
           180          185          190
Phe Arg Leu Tyr Cys His Ala Pro Cys Met Ser Gly Tyr Leu Val Asp
           195          200          205
Lys Phe Ala Asp Arg Glu Arg Lys Val Ala Leu Lys Ala Met Ile Lys
           210          215          220
Thr Tyr Val Val Pro Ser Ser Leu Leu Pro Leu Leu Phe Pro Ser Phe
           225          230          235          240
Arg Leu Ala Pro Pro Leu Arg Pro Ala Pro Gly Arg Arg Pro Pro Pro
           245          250          255
Ala Pro Asn Pro Cys Pro Gly Pro Cys Phe Pro Ile Ile Phe Leu His
           260          265          270
Ser Ala Leu Pro Ser Pro Val Pro Leu Ala Leu Leu Val Gly His Leu
           275          280          285
Cys Val Pro Gly His Ser Ser Pro Ser Pro His Cys Ser Gln Leu Thr
           290          295          300
Ala Ser Gly Ala Ser Ser Pro Pro His Leu Cys Val Ser Ser Ser Cys
           305          310          315          320
Ser Leu Leu Pro Gly Pro Pro Ser Ser Leu Leu Ala Leu Gly Phe Leu
           325          330          335
Arg Thr Leu Arg Ser Leu Leu Ser Gln Leu Val Ala Val Leu Pro Pro
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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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120
gtttccttgt ggggtgaggg tactttcccg cccctgtgtt tcgggtgtgc ccacgtggct
180
tgctctggcc atggaatgaa gcagaaacga aagcctgccg gttctgagcc tatgccgaa
240
gacgccttgg gcggttcgc ggtccctgtg cgcttcacc ttcacacaga aggacttctc
300
tggtgcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc
360

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 480
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 540
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 600
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 660
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 780
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 960
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 1020
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 1080
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 1140
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 1260
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 1287

<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

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 20 25 30
 Pro Ala Ser Ser Glu Pro Met Pro Glu Asp Ala Leu Gly Gly Ser Ala
 35 40 45
 Val Pro Val Arg Phe His Leu His Pro Glu Gly Leu Leu Trp Cys Ser
 50 55 60
 Arg Cys Phe Phe Ser His Gly Pro Lys Gly Ser Glu Pro Pro Gly Arg
 65 70 75 80
 Ser Ala Gly Leu Gln Gly Ala Thr Glu Arg Ser Gly Arg Pro Ser Val
 85 90 95
 Gln Ala Gln Ala Gln Ala Cys Glu Asn Leu Val Pro Ala Thr Val Trp
 100 105 110
 Asp Gly

<210> 4255

<211> 2205

<212> DNA

<213> Homo sapiens

<400> 4255

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120
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180
cactaggaaa caatgggtatc tccatgcagt agctaatacca gggttgattt ctttgactgg
240
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360
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420
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660
ccttggtgat ggcagccact gttccaaata cagattagca aggatccag gaaccaacgc
720
gttgggtggc attgtcaacg aaacctgcga ctctcttgcc ttctgtgcct gcagcatggt
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1020
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1140
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 1860
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 1920
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 1980
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 2205

<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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Ser	Ser	Leu	Asn	Thr	Tyr	Ile	Val	Arg	Cys	Ile	Ala	Thr	Pro	Asn	
			20					25				30			
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40				45				
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50				55					60					
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65				70					75				80		
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Thr	Gln	Leu	Ser	Ser	
			85					90				95			
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
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Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
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Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
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His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

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145          150          155          160
His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
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Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
          180          185          190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
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Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
          210          215          220
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225          230          235          240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
          245          250          255
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
          260          265          270
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
          275          280          285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
          290          295          300
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305          310          315          320
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
          325          330          335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
          340          345          350
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro
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Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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20      25      30
Glu Asp Leu Ala Pro Phe Ser Leu Arg Lys Arg Trp Glu Ser Glu Pro
35      40      45
His Pro Tyr Val Phe Phe Asn Asp Asp His Thr Thr Met Thr Phe Ile
50      55      60
Gly Phe His Leu Gln Pro Asn Ile Asn Gly Ser Val Asp Ala Ile Ser
65      70      75      80
His Leu Thr Gly Lys Val Ile Lys Arg Asp Val Met Thr Arg Asp Leu
85      90      95
Tyr Gln Gly Leu Leu Leu Arg Val Pro Phe Asn Val Asp Phe Asp

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      115              120              125
Ile Pro Gln Ala Thr Asp Pro Asp Lys Thr Tyr Glu Leu Thr Thr Asp
      130              135              140
Asn Met Leu Lys Ile Leu Ala Ile Glu Met Arg Phe Arg Cys Gly Ile
      145              150              155
Pro Val Ile Ile Met Gly Glu Thr Gly Cys Gly Lys Thr Arg Leu Ile
      165              170              175
Lys Phe Leu Ser Asp Leu Arg Arg Gly Gly Thr Asn Ala Asp Thr Ile
      180              185              190
Lys Leu Val Lys Val His Gly Gly Thr Thr Ala Asp Met Ile Tyr Ser
      195              200              205
Arg Val Arg Glu Ala Glu Asn Val Ala Phe Ala Asn Lys Asp Gln His
      210              215              220
Gln Leu Asp Thr Ile Leu Phe Phe Asp Glu Ala Asn Thr Thr Glu Ala
      225              230              235
Ile Ser Cys Ile Lys Glu Val Leu Cys Asp His Met Val Asp Gly Gln
      245              250              255
Pro Leu Ala Glu Asp Ser Gly Leu His Ile Ile Ala Ala Cys Asn Pro
      260              265              270
Tyr Pro Glu Asn Ser Glu Glu Met Ile Cys Arg Leu Glu Ser Ala Gly
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<210> 4259

<211> 377

<212> DNA

<213> Homo sapiens

<400> 4259

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<210> 4260

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4260

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      20           25           30
Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
 35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
 50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
 65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
      85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
      100           105           110
Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala
      115           120           125

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<210> 4261

<211> 592

<212> DNA

<213> Homo sapiens

<400> 4261

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<210> 4262

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4262

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His Met Phe Lys Asp Lys Gly Val Trp Gly Asn Lys Gln Asp His Arg

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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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			20					25					30		
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<212> DNA

<213> Homo sapiens

<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu
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<400> 4267

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<212> PRT

<213> Homo sapiens

<400> 4268

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<212> DNA

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<210> 4270

<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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		20						25				30		Val
Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr
		35					40					45		Asn
Leu	Ala	Gly	Arg	Arg	Thr	Leu	Gln	Gly	Arg	Ala	Lys	Met	Ala	Ser
		50					55				60			Val
Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe
				70						75				Met
Ile	Glu	Cys	Asp	Met	Cys	Gln	Asp	Trp	Phe	His	Gly	Ser	Cys	Val
			85						90				95	Gly
Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro
			100					105					110	Asn
Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly
			115				120						125	Ser
Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly
			130				135						140	Ser
Pro	Thr	Phe	Val	Arg	Glu	Leu	Arg	Ser	Arg	Thr	Phe	Asp	Ser	Ser
					150						155			Asp
Glu	Val	Ile	Leu	Lys	Pro	Thr	Gly	Asn	Gln	Leu	Thr	Val	Glu	Phe
				165				170					175	Leu
Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp
			180					185					190	Gly
Leu	Gly	Met	Thr	Leu	Pro	Ser	Pro	Ser	Phe	Thr	Val	Arg	Asp	Val
			195				200					205		Glu
His	Tyr	Val	Gly	Ser	Asp	Lys	Glu	Ile	Asp	Val	Ile	Asp	Val	Thr
			210				215				220			Arg
Gln	Ala	Asp	Cys	Lys	Met	Lys	Leu	Gly	Asp	Phe	Val	Lys	Tyr	Tyr
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Ser	Gly	Lys	Arg	Glu	Lys	Val	Leu	Asn	Val	Ile	Ser	Leu	Glu	Phe
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Glu Phe Asp Ile Glu Glu Asp Tyr Thr Thr Asp Glu Asp Met Val Glu
725                730                735
Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu
740                745                750
Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala
755                760                765
Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly
770                775                780
Met Leu Cys Met Ala Asn Leu Gln Ser Ser Ser Ser Pro Ala Thr
785                790                795                800
Ser Ser Leu Gln Ala Trp Trp Thr Gly Gly Gln Asp Arg Ser Ser Gly
805                810                815
Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln
820                825                830
Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr
835                840                845
Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser
850                855                860
Leu Gly Ala Cys Phe Lys Asp Ala Glu Tyr Ile Tyr Pro Ser Leu Glu
865                870                875                880
Ser Asp Asp Asp Asp Pro Ala Leu Lys Ser Arg Pro Lys Lys Lys Lys
885                890                895
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Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser
915                920                925
Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu
930                935                940
Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu
945                950                955                960
Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr
965                970                975
Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser
980                985                990
Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser
995                1000                1005
Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala
1010                1015                1020
Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr
1025                1030                1035                1040
Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly
1045                1050                1055
Lys Arg Pro Lys Lys Gly Leu Ala Thr Ala Lys Gln Arg Leu Gly Arg
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Ile Leu Lys Ile His Arg Asn Gly Lys Leu Leu Leu
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<210> 4271

<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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 180
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 240
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 300
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 360
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 420
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 480
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<210> 4272

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

Thr	Met	Ser	Phe	Pro	Leu	Asn	Ser	Pro	Gly	Gln	Gln	Ser	Gly	Leu	Lys
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Ile	Leu	Arg	Gln	Leu	Thr	Thr	Asp	Phe	Val	His	His	Tyr	Ile	Val	Ala
		20					25					30			
Asn	Asn	Phe	Ser	Glu	Leu	Phe	His	Leu	Leu	Ser	Ser	Arg	Asn	Cys	Lys
	35					40						45			
Thr	Arg	Asn	Leu	Val	Met	Lys	Leu	Leu	Leu	Asn	Met	Ser	Glu	Asn	Pro
	50				55						60				
Thr	Ala	Ala	Arg	Asp	Met	Ile	Asn	Met	Lys	Ala	Leu	Ala	Ala	Leu	Lys
65				70					75					80	
Leu	Ile	Phe	Asn	His	Lys	Glu	Ala	Lys	Ala	Asn	Leu	Val	Ser	Gly	Val
		85						90						95	
Ala	Ile	Phe	Ile	Asn	Ile	Lys	Glu	His	Ile	Arg	Lys	Gly	Ser	Ile	Val
		100						105					110		
Val	Asn	Lys	Tyr	Gly	His	Thr	Thr	Asn	Lys	Ile	Gly	Phe	Cys	Leu	Phe
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<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

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<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55				60					
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70				75					80	
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85						90					95	
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100				105						110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
		115					120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
		130				135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
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Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165						170					175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180				185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
		195					200					205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
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225

230

235

<210> 4275
 <211> 874
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4276
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 4276
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 Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
 35 40 45
 Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
 50 55 60
 Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg


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65          70          75          80
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      85          90          95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100          105          110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225          230          235          240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Ile Leu Asp Ile Ile
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Phe Gln Asp Phe Cys Val Gly Lys
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<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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540
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3482

<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

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 1860
 ctcattgggtg ggagcccagc catggcccta attgtgcctg agcttgactt tcagtcaggg
 1920
 ccacagtga cattaaatta ttattccata caaaaaaaaa aaa
 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

Arg Pro Leu Thr Glu Asn Ser Leu Leu Glu Val Leu Asp Gly Thr Val
 1 5 10 15
 Met Met Tyr Ser Leu Ser Val His Gln Gln Leu Gly Lys Met Val Gly
 20 25 30
 Val Ser Asp Asp Val Asn Glu Tyr Ala Met Ala Leu Arg Asp Thr Glu
 35 40 45
 Asp Lys Leu Arg Arg Cys Pro Lys Arg Arg Lys Asp Ile Leu Ala Glu
 50 55 60
 Leu Thr Lys Ser Gln Lys Val Phe Ser Glu Lys Leu Asp His Leu Ser
 65 70 75 80
 Arg Arg Leu Ala Trp Val His Ala Thr Val Tyr Ser Gln Glu Lys Met
 85 90 95
 Leu Asp Ile Tyr Trp Leu Leu Arg Val Cys Leu Arg Thr Ile Glu His
 100 105 110
 Gly Asp Arg Thr Gly Ser Leu Phe Ala Phe Met Pro Glu Phe Tyr Leu
 115 120 125
 Ser Val Ala Ile Asn Ser Tyr Ser Ala Leu Lys Asn Tyr Phe Gly Pro
 130 135 140
 Val His Ser Met Glu Glu Leu Pro Gly Tyr Glu Glu Thr Leu Thr Arg
 145 150 155 160
 Leu Ala Ala Ile Leu Ala Lys His Phe Ala Asp Ala Arg Ile Val Gly
 165 170 175
 Thr Asp Ile Arg Asp Ser Leu Met Gln Ala Leu Ala Ser Tyr Val Cys
 180 185 190
 Tyr Pro His Ser Leu Arg Ala Val Glu Arg Ile Pro Glu Glu Gln Arg
 195 200 205
 Ile Ala Met Val Arg Asn Leu Leu Ala Pro Tyr Glu Gln Arg Pro Trp
 210 215 220
 Ala Gln Thr Asn Trp Ile Leu Val Arg Leu Trp Arg Gly Cys Gly Phe
 225 230 235 240
 Gly Tyr Arg Tyr Thr Arg Leu Pro His Leu Leu Lys Thr Lys Leu Glu

```

                245                250                255
Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
                305                310                315
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
                370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
                385                390                395
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
                450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
                465                470                475
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
                500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
                515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
                530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
                545                550                555
Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
                565                570                575

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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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acgcgtgaag ggacagagct ggggccttgt caggagcccc acagtggccc aatgggccag
60
atgccccata gtctcagccc acctctcttc tgccatgagt cccctgattc tgtcctttga
120
gctgactctg agaggcagtg ggcttccgcg cagcacctcc cccatcacca ttgttagggc
180

```

tgggtttatga ggccggaagt aagcaagcac ccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttcagcagg
 300
 tcaggcatgg atgcagggtg aaatgagaga ggatcagtga gcgcattcat gtctttttgag
 360
 tgggtctacag atgagtggtc tccagtctca aatgaggaga acaaataaggg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct ggggtatata gtcctcctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
1				5					10					15	
Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20				25						30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
			35				40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
	50				55						60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
	65				70					75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85						90					95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc
 120
 gggagaaacc gagtccccgc cgggtcccca cegtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgc cacaacttcg gtctctccag
 240
 cctcattcct gcccgactc cgccaaaactg etcgccctgc ccagcgcagc ggaatgcagc
 300
 ctcccgccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcagggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tcagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gtccccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtcacagact tcctcaccc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcaggctctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgcctggggg cctgtcccaa ggcctcgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact ccctcctgg gactctgact
 540
 cgcactgtga ccaggacctc tcccagccac ctttcagcaa ggcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

<400> 4288

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Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1              5              10              15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20              25              30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35              40              45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50              55              60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65              70              75
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn
 85              90              95
Arg Ala Ala Arg Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
100              105              110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
115              120              125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
130              135              140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
145              150              155
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
165              170              175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
180              185              190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
195              200              205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
210              215              220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
225              230              235

```

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact acctgcctg tgccggatat gagggagaaa tatgggagcc
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tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaacacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagtcac catggcatcc ttgctctgt cctgtttctc ctgtctctgg
240
ctattcagg tcccgtagg atactgtcac ctttgaataa tggagcttgc ggaagaccaa
300
gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgcccagag ttg
353

```

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1              5              10              15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20              25              30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35              40              45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50              55              60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65              70              75              80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85              90              95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100              105              110
Leu

```

<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
 60
caagcagtcac ctccccctagc ccatcatcac acagattatt caaagcccaac cgatatctca
 120
tggagagaca cactttctca gaagtttgga tcctcagatc acttggagaa actattttaag
 180
atggatgaag caagtgccca gtccttgct tataaggaaa aaggccattc tcagagttca
 240
caattttcct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
 300
gctacgggtg cagttgcttc tccacatacc acctcggtca ctccaagcc cgccaccctt
 360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggcaccaca
 420
gctccacctg taaccactgt cacttctcag cctcccacga cctcatttc tacagttttt
 480
acacgggctg tggctacact ccaagcaatg gctacaa
 517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1              5              10              15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```



```

      1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
      130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165          170          175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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nntctagaaa atcactgtct cttctaccc tgccatctct acaccagggt tacaacaag
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agcccaatgc tggctccttg tttgtaaat aagatttgtt ggactacagc tatgccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagacccccca ttgccacaa gcctaaaaca ttgcatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
360
ccctcccaga ttcacgtgat tatcccacct cagcctcctg agtacctggg actataggcg
420
cgtgcccaacc a
431

```

<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

```

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```

1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
	65	70	75
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
	130	135	

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt gggatataaag gtcaaccaag tgtcagctgc agttggaaaa
60
gattttcacgc tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattacccta tgacggatta gaggaagatg atgaggtcct tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccattccttca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccagggtcct cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacacctgc ggggctttga ttctacagat cttttctcaa ggaagcttag gacctgtggg
480
aatggcaaaa cagttcgtcc atcctctggt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttccctt gaaactggag gatgacagtt tcccaactca caaaagggaag
600
gccaaagtat ccattcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatgcctcgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcgggt
 1080
 ggtgaacctg ttgccttcac caatgggaga agaggccctc ctccacgctc caagcttggga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagacctc acagggggcc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgtctca tagaaaacaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtgcga gaaagattga taaataaata ttttttacia gataagatag aatttttcta
 1440
 tctcaataacc ttttaaaata atgcccagca gtattaaaaa gtgtaagggt tgtttatccc
 1500
 agaagacctc cacccttacc ccattccaaa tctcaggagg caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaaatt ttttggtccc ttacctctaa tgaatttatt ctgaaatatg
 1620
 tatcgtaggt gctcctacca ctttagtctg agtggaagc caaaaaac
 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa Met Asp Ser Ala Phe Val Gly Ile Lys Val Asn Gln Val Ser Ala
 1 5 10 15
 Ala Val Gly Lys Asp Phe Thr Val Ile Pro Ser Lys Leu Ile Gln Phe
 20 25 30
 Asp Pro Gly Met Ser Thr Lys Met Trp Asn Ile Ala Ile Thr Tyr Asp
 35 40 45
 Gly Leu Glu Glu Asp Asp Glu Val Phe Glu Val Ile Leu Asn Ser Pro
 50 55 60
 Val Asn Ala Val Leu Gly Thr Lys Thr Lys Ala Ala Val Lys Ile Leu
 65 70 75 80
 Asp Ser Lys Gly Gly Gln Cys His Pro Ser Tyr Ser Ser Asn Gln Ser
 85 90 95
 Lys His Ser Thr Trp Glu Lys Gly Ile Trp His Leu Leu Pro Gly
 100 105 110
 Ser Ser Ser Ser Thr Thr Ser Gly Ser Phe His Leu Glu Arg Arg Pro
 115 120 125
 Leu Pro Ser Ser Met Gln Leu Ala Val Ile Arg Gly Asp Thr Leu Arg
 130 135 140
 Gly Phe Asp Ser Thr Asp Leu Ser Gln Arg Lys Leu Arg Thr Arg Gly
 145 150 155 160
 Asn Gly Lys Thr Val Arg Pro Ser Ser Val Tyr Arg Asn Gly Thr Asp

gctgcaggca gcgagtgtg cgggcccgct gcatctcctc actgtcacgc aggggtcttct
 540
 ccagccccctg aaggccttgg gtcagggccc catacagctc ctgcggggccc tgctccatgc
 600
 cccacttgtg ctctccttc tctccatggc ggccctgtggg gctcagcacc tcttcaagct
 660
 gctgaatctt gatttgctgc aagcagctct ccttctccaa catgggtcact gagtggttca
 720
 ggaactcgaa agccttgggc tgggcctgta actggctctt gagtgactca agttcacatc
 780
 gcaggagctt ctgggagtcg ggaatcatca caatgggtctt ggctttgact ttggaagagc
 840
 tgggtctcaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
 cagtcctcag ctgtgacgct gaagtttgat cccgcgggga caccatcgta ttaaacgct
 960
 cagagactga gtcacagaga ggggtgtc
 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5					10					15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	His	Trp	Leu	Pro	Ala	
			20					25				30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
			35				40				45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
			50			55				60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70				75					80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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 120
 caggggccaga gcggggcagg aggatgcttt cccagcccca ccatggagct gcgctgtggg
 180
 ggattgtgtg tcagttctcg ctttgattca gggaaatctag cccacgtgga gaaggtggaa
 240
 tctttgtcca gtgatgggga aggggtagga ggtggggcgt cagccctgac cagtggcatt
 300

gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc tgaacggaa
360
tttgagaatg ggaacaggtc atggttctac ttcagcgtcc ggggaggaat gccaggaaaa
420
ctcatcaaga tcaacattat gaacatgaac aagcagagca agctgtattc ccagggcatg
480
gcccccttgg tgcgcacact gcccccgcgg ccacgctggg aacgcattcg agaccggccc
540
acctttgaga tgacagagac gcagttttgt ttatccttgg ttcacgtttt cgtggagggg
600
cgtgggggcca ccaccttctt cgcttcttgc tacccttctt cctacagtga ctgccaggaa
660
ctgctaaacc agctagacca gcgctttccg gagaaccacc ctacccatag cagccccctg
720
gataccatct attaccatcg ggagctcctt tgctattctc tggatggact tcgtgtagat
780
ctgctgacga tcacttctcg ccatgggctt cgagaagatc gagagccccg tctagagcag
840
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900
ttaagcagta gactacaccc aggggagact ccatctagct ttgtcttcaa tggctttctg
960
gacttcatcc tccgacctga tgatccccgg gcccacaccc tccgtgcctt ctctgtcttt
1020
aagctgatto ccatgttgaa ccccgatggg gtgggtccggg gacactaccg cacagactca
1080
cgtggagtga atctgaacgg tcagtacctg aagcctgatg ccgtcctgca cccggccatc
1140
tatggggcca aagctgtgct tctctaccac catgtgcact ctctgtgtaa ctcccagagt
1200
tcctctgagc accagcccag ttctctgtct cctcctgatg ctctgttttc tgacctggag
1260
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<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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			20					25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35					40					45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
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Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
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Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
			85						90				95		
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
		100					105						110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120					125			
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130					135					140				
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
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Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165						170				175		
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
		180					185						190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
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Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
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Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

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Asp Asp Pro Arg Ala Gln Thr Leu Arg Arg Leu Phe Val Phe Lys Leu
                275          280          285
Ile Pro Met Leu Asn Pro Asp Gly Val Val Arg Gly His Tyr Arg Thr
                290          295          300
Asp Ser Arg Gly Val Asn Leu Asn Arg Gln Tyr Leu Lys Pro Asp Ala
305          310          315          320
Val Leu His Pro Ala Ile Tyr Gly Ala Lys Ala Val Leu Leu Tyr His
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His Val His Ser Arg Leu Asn Ser Gln Ser Ser Ser Glu His Gln Pro
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Ser Ser Cys Leu Pro Pro Asp Ala Pro Val Ser Asp Leu Glu Lys Ala
355          360          365
Asn Asn Leu Gln Asn Glu Ala Gln Cys Gly His Ser Ala Asp Arg His
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Asn Ala Glu Ala Trp Lys Gln Thr Glu Pro Ala Glu Gln Lys Leu Asn
385          390          395          400
Ser Val Trp Ile Met Pro Gln Gln Ser Ala Gly Leu Glu Glu Ser Ala
                405          410          415
Pro Asp Thr Ile Pro Pro Lys Glu Ser Gly Val Ala Tyr Tyr Val Asp
                420          425          430
Leu His Gly His Ala Ser Lys Arg Gly Cys Phe Met Tyr Gly Asn Ser
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Phe Ser Asp Glu Ser Thr Gln Val Glu Asn Met Leu Tyr Pro Lys Leu
450          455          460
Ile Ser Leu Asn Ser Ala His Phe Asp Phe Gln Gly Cys Asn Phe Ser
465          470          475          480
Glu Lys Asn Met Tyr Ala Arg Asp Arg Arg Asp Gly Gln Ser Lys Glu
                485          490          495
Gly Ser Gly Arg Val Ala Ile Tyr Lys Ala Ser Gly Ile Ile His Ser
500          505          510
Tyr Thr Leu Glu Cys Asn Tyr Asn Thr Gly Arg Ser Val Asn Ser Ile
515          520          525
Pro Ala Ala Cys His Asp Asn Gly Arg Ala Ser Pro Pro Pro Pro
530          535          540
Ala Phe Pro Ser Arg Tyr Thr Val Glu Leu Phe Glu Gln Val Gly Arg
545          550          555          560
Ala Met Ala Ile Ala Ala Leu Asp Met Ala Glu Cys Asn Pro Trp Pro
565          570          575
Arg Ile Val Leu Ser Glu His Ser Ser Leu Thr Asn Leu Arg Ala Trp
580          585          590
Met Leu Lys His Val Arg Asn Ser Arg Gly Leu Ser Ser Thr Leu Asn
595          600          605
Val Gly Val Asn Lys Lys Arg Gly Leu Arg Thr Pro Pro Lys Ser His
610          615          620
Asn Gly Leu Pro Val Ser Cys Ser Glu Asn Thr Leu Ser Arg Ala Arg
625          630          635          640
Ser Phe Ser Thr Gly Thr Ser Ala Gly Gly Ser Ser Ser Ser Gln Gln
645          650          655
Asn Ser Pro Gln Met Lys Asn Ser Pro Ser Phe Pro Phe His Gly Ser

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Arg Pro Ala Gly Leu Pro Gly Leu Gly Ser Ser Thr Gln Lys Val Thr
        675                680                685
His Arg Val Leu Gly Pro Val Arg Gly Lys Pro Val Trp Glu Pro Leu
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Gln His Val Phe Gly Cys Leu Gly His Cys Trp Gly Lys
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<210> 4303

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4303

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<210> 4304

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4304

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20        25        30
Glu Glu Glu Glu Glu Gln Asp His Gly Val Gly Arg Thr Gly Thr Val
35        40        45
Asn Ser Val Gly Ser Asn Gln Ser Ile Pro Ser Met Ser Ile Ser Ala

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50					55					60					
Ser	Ser	Gln	Ser	Ser	Ser	Val	Asn	Ser	Leu	Pro	Asp	Val	Ser	Asp	Asp
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Lys	Ser	Glu	Leu	Asp	Met	Met	Glu	Gly	Asp	His	Thr	Val	Met	Ser	Asn
				85					90					95	
Ser	Ser	Val	Ile	His	Leu	Lys	Pro	Glu	Glu	Asn	Tyr	Arg	Glu	Glu	Glu
			100					105					110		
Gly	Asp	Pro	Arg	Thr	Arg	Ala	Ser	Asp	Pro	Gln	Ser	Pro	Pro	Gln	Val
		115					120					125			
Ser	Arg	His	Lys	Ser	His	Tyr	Arg	Asn	Arg	Glu	His	Phe	Ala	Thr	Ile
	130				135						140				
Arg	Thr	Ala	Ser	Leu	Val	Thr	Arg	Gln	Met	Gln	Glu	His	Glu	Gln	Asp
145				150						155				160	
Ser	Glu	Leu	Arg	Glu	Gln	Met	Ser	Gly	Tyr	Lys	Arg	Met	Arg	Arg	Gln
			165						170					175	
His	Gln	Lys	Gln	Leu	Met	Thr	Leu	Glu	Asn	Lys	Leu	Lys	Ala	Glu	Met
		180					185						190		
Asp	Glu	His	Arg	Leu	Arg	Leu	Asp	Lys	Asp	Leu	Glu	Thr	Gln	Arg	Asn
	195					200					205				
Asn	Phe	Ala	Ala	Glu	Met	Glu	Lys	Leu	Ile	Lys	Lys	His	Gln	Ala	Ala
	210			215						220					
Met	Glu	Lys	Glu	Ala	Lys	Val	Met	Ser	Asn	Glu	Glu	Lys	Lys	Phe	Gln
225				230						235				240	
Gln	His	Ile	Gln	Ala	Gln	Gln	Lys	Lys	Glu	Leu	Asn	Ser	Phe	Leu	Glu
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<210> 4305

<211> 3400

<212> DNA

<213> Homo sapiens

<400> 4305

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<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Asp	Ala	Ala	Leu	Arg	Ala	Arg	Lys	Leu	Arg	Ser	Asn	Leu	Arg	Gln	Leu
			20						25				30		
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
			35				40					45			
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
	50					55					60				
Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

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Gly	Leu	Gly	Ser	Ala	Leu	Gly	Ser	Leu	Arg	Val	Leu	Val	Leu	Arg
			85						90				95	
Asn	Arg	Phe	Ala	Arg	Leu	Pro	Pro	Ala	Val	Ala	Glu	Leu	Gly	His
			100					105					110	His
Leu	Thr	Glu	Leu	Asp	Val	Ser	His	Asn	Arg	Leu	Thr	Ala	Leu	Gly
		115					120					125		Ala
Glu	Val	Val	Ser	Ala	Leu	Arg	Glu	Leu	Arg	Lys	Leu	Asn	Leu	Ser
	130					135					140			His
Asn	Gln	Leu	Pro	Ala	Leu	Pro	Ala	Gln	Leu	Gly	Ala	Leu	Ala	His
	145				150					155				Leu
Glu	Glu	Leu	Asp	Val	Ser	Phe	Asn	Arg	Leu	Ala	His	Leu	Pro	Asp
			165						170					175
Leu	Ser	Cys	Leu	Ser	Arg	Leu	Arg	Thr	Leu	Asp	Val	Asp	His	Asn
		180						185					190	Gln
Leu	Thr	Ala	Phe	Pro	Arg	Gln	Leu	Gln	Leu	Val	Ala	Leu	Glu	Glu
	195					200					205			
Leu	Asp	Val	Ser	Ser	Asn	Arg	Leu	Arg	Gly	Leu	Pro	Glu	Asp	Ile
	210					215					220			Ser
Ala	Leu	Arg	Ala	Leu	Lys	Ile	Leu	Trp	Leu	Ser	Gly	Ala	Glu	Leu
	225				230					235				Gly
Thr	Leu	Pro	Ala	Gly	Phe	Cys	Glu	Leu	Ala	Ser	Leu	Glu	Ser	Leu
			245						250					Met
Leu	Asp	Asn	Asn	Gly	Leu	Gln	Ala	Leu	Pro	Ala	Gln	Phe	Ser	Cys
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Gln	Arg	Leu	Lys	Met	Leu	Asn	Leu	Ser	Ser	Asn	Leu	Phe	Glu	Glu
		275				280						285		Phe
Pro	Ala	Ala	Leu	Leu	Pro	Leu	Ala	Gly	Leu	Glu	Glu	Leu	Tyr	Leu
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Arg	Asn	Gln	Leu	Thr	Ser	Val	Pro	Ser	Leu	Ile	Ser	Gly	Leu	Gly
	305				310					315				Arg
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Ser	Ile	Val	Glu	Leu	Thr	Gly	Leu	Glu	Glu	Leu	Val	Leu	Gln	Gly
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Leu	Trp	Lys	Ile	Lys	Asp	Asn	Pro	Leu	Ile	Gln	Pro	Pro	Tyr	Glu
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Cys	Met	Lys	Gly	Ile	Pro	Tyr	Ile	Ala	Ala	Tyr	Gln	Lys	Glu	Leu
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His	Ser	Gln	Pro	Ala	Val	Gln	Pro	Arg	Leu	Lys	Leu	Leu	Leu	Met
			405					410						Gly
His	Lys	Ala	Ala	Gly	Lys	Thr	Leu	Leu	Arg	His	Cys	Leu	Thr	Glu
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Arg	Val	Glu	Gly	Cys	Pro	Gly	Gly	Gly	Asp	Lys	Glu	Lys	Cys	Tyr
		435					440					445		Pro
Pro	Ser	Pro	Pro	Pro	Val	Ser	Lys	Gly	Ile	Glu	Val	Thr	Ser	Thr
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Lys	Leu	Leu	Ser	Val	Ala	Glu	His	Arg	Glu	Ile	Phe	Pro	Asn	Leu	His														
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			660					665					670																
Pro	Pro	Gln	Ala	Gln	Arg	Leu	Trp	Leu	Ser	Trp	Trp	Asp	Ser	Ala	Arg														
		675					680					685																	
Leu	Gly	Leu	Gln	Ala	Gly	Leu	Thr	Glu	Asp	Arg	Leu	Gln	Ser	Ala	Leu														
	690					695					700																		
Ser	Tyr	Leu	His	Glu	Ser	Gly	Lys	Leu	Leu	Tyr	Phe	Glu	Asp	Ser	Pro														
705					710					715																			
Ala	Leu	Lys	Glu	His	Val	Phe	His	Asn	Leu	Thr	Arg	Leu	Ile	Asp	Ile														
				725					730					735															
Leu	Asn	Val	Phe	Phe	Gln	Arg	Asp	Pro	Ser	Leu	Leu	Leu	His	Lys	Leu														
			740					745					750																
Leu	Leu	Gly	Thr	Ser	Gly	Glu	Gly	Lys	Ala	Glu	Gly	Glu	Ser	Ser	Pro														
		755					760					765																	
Pro	Met	Ala	Arg	Ser	Thr	Pro	Ser	Gln	Glu	Leu	Leu	Arg	Ala	Thr	Gln														
		770				775					780																		
Leu	His	Gln	Tyr	Val	Glu	Gly	Phe	Leu	Leu	His	Gly	Leu	Leu	Pro	Ala														
785					790					795					800														
His	Val	Ile	Arg	Leu	Leu	Lys	Pro	His	Val	Gln	Ala	Gln	Gln	Asp															
				805																									

930		935		940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr				
945		950		955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu				
	965		970	975
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser				
	980		985	990
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro				
	995	1000		1005
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val				
	1010	1015		1020
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys				
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln				1040
	1045		1050	

<210> 4307

<211> 947

<212> DNA

<213> Homo sapiens

<400> 4307

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 tgtgtgactg ccaggctcac ctgctctgga accggcctcg gtttgagag atcaatgacc
 120
 aggacagaac tgatcgatac gtccagctc tgaggaccgt ctctctctc ctgggcgagc
 180
 cgttcttcac taccagcctg ctgccgtggc acaacctcta ctctgtgtac gtgcggcagc
 240
 tgtggaccag cacctggggc cagggtgcat ggtgatgcc caggcagcct cgctgcacgc
 300
 tgtgggtgtg gagttcaggg tgtgcaggga acagcaagat gtgcctcttg ttcttctgtc
 360
 cacgcttccc tgtgtcctgc gggcggtgt ggtggggct gctcttctc cacaggancc
 420
 tgtggcggat ccggagccnc ctgtggtgac tgcgaaggct tcgacgtgca catcatggt
 480
 gacatgatta aggtaggcag ggccacactc tgcatagtcc ccccgacctg ctctgtgata
 540
 gcaggcctct cacagggtcc cagcttgggc agcacaggct ctctgtgttg gggcagtgag
 600
 gtcagggtgt gccattttgt gtggttcaac atgagcattg ctgtgtacca gccctgttct
 660
 tggctccgtg ctgtcacctc gtgtcagaat ctccactggg cctgcacgtc ctgtcattgc
 720
 aactgccctc gccagtgcc acagcttctt ttctagtggg gctgacttcc cagaggccat
 780
 ctgggaacct tcttaggcag ccatttccat ggtgggggct ccattcccg gaggggtacc
 840
 tgaggagatt cccacaggtt atttacatgg taggggttag caactgggcc tacgttctcc
 900
 agaaccatgg gctgtcctga cagcgccagt ggtccttga ttcatga
 947

<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
 Gly Pro Ser Leu Ser Ser Trp Ala Ser Arg Ser Ser Leu Pro Ala Cys
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 Cys Arg Gly Thr Thr Ser Thr Ser Gly Thr Cys Gly Arg Cys Gly Pro
 20 25 30
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
 165 170 175
 Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn Cys Pro
 180 185 190
 Cys Gln Cys Pro Gln Leu Leu Phe
 195 200

<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

<400> 4309
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 120
 gtgcgccttg acactggaga actgaacaga ttggggaggt gatgtgttaa gaccacataa
 180
 tccatttgaa atctcaacct tttcagggtc actatcacct tcaatgacat tcacagaagt
 240
 ttcccgatct gttaaactgt ctgaaatact tggatgattt tcatccaaag ttgaagtttc
 300
 aagatttggt tcatcattca cctgttgaat tataaccctt tctgaatgct ttgatttata
 360
 ataggcatg aaaaattcag ttggtgaagg gaatatctgc ttctcatcct ttggtgcga
 420

caataacata tccaaagcct tttggtattg ttgacgttcc tgctgaattg ttacttcact
480
ttcatttttt aattcatttg gttctgaatt cccagccttt tcaaaatcaa atacattcaa
540
catatcaaca tcattttgct ttacogagtt ttccctccgat gtgcagccta agtctacttt
600
caggacatgc agcagggtgc gcattttttc ctctcccaa tgtttatttt gttttatatg
660
tcgctcgaac agtcgttcta aaaacctggt tgaataataa ccaagtttca aaatttcac
720
tgttacatct tcaatgaaac tcagatacaa cagttcttct tcatacagagt agattttacg
780
agttgaaggg ggcttcaggg aatactgaca cattgccctt ggtgaggaat gctgaagagc
840
atcaccctta atctcatccc atgttgagtc atgcccttct aaaggtaaag gagctatttt
900
ttctttggca tcatatgtca cacaattaga tgcctgcttt atgttcattt ctgaatctgt
960
catgttttta gtctcagctg tccccaaact agatttaaag cttaattcag tctgggttcc
1020
agcttctatc cgttgatctg taaaatcctt ttttcttttg gcagggtgat aatagcgata
1080
ctgtgacagg aaagattttg cttctgtttt taaagtgcga ggagtgaatg gcaattgttt
1140
gttagaaaaa agttcagaat gtttatccaa aagatcccca ctgggtgctt tcgaaatgac
1200
taactgaaac cgggtgggaat ttgggaatgt gcttctgggc cttctgccat acagggtccc
1260
agagctcagt ttccggggcc cggagggtgc ataaccaca ctggacgggg aggaactgga
1320
gttcttctca ggaccatttg tgatgacttt actggattta ttagactta ggtgtagtct
1380
ctctgaagag ggtactagt accttgcaaa ggatgaaaa ccattcattt cttcttttaa
1440
catgtcatcc tcaatttgcg gttcgctga gggcttttgt aaggatttaa aaagtactt
1500
ggaattattt ttataattgg ctgcattgc agtttttagt aatttgaact ctttttcaca
1560
ttgtgctaat tcctttttga gtttctctct tcgtgttggg tctgcatact ttatgctggt
1620
actcacgctt actggaaccg agcagctctac tgcagcttgg gctgaaagga ttttattata
1680
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1740
agtgcacaaa gcattacttt tggtgctcaa gtgtccttta aataggcacg gtggaccata
1800
tctgggaagg acagaggttg ctctgactct ccggtgcaca tcatgctta gtcccttggc
1860
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1920
tggaggac
1928

<210> 4310

<211> 599

<212> PRT

<213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
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Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
      20              25              30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35              40              45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
      50              55              60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
      65              70              75              80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85              90              95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100             105             110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115             120             125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130             135             140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
      145             150             155             160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165             170             175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180             185             190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195             200             205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
      210             215             220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
      225             230             235             240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245             250             255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260             265             270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275             280             285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
      290             295             300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
      305             310             315             320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325             330             335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340             345             350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355             360             365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
      370             375             380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385          390          395          400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
          465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
          545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
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<210> 4311

<211> 432

<212> DNA

<213> Homo sapiens

<400> 4311

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cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattg ggggaaaagg
120
aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctcgctccta gttgtcctta ctttagaagt
300
gagactggag ggggaaggcga caggcggatt gcgctctctc gagccaactc atcctctttc
360
agttctgggg aaagctgctc ttctgaatcg tcaactcagc ctaactgcac aaatgcagg
420
gtctccgtct tg
432

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<210> 4312

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
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His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
           20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
           35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
           50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
           85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
           100          105          110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
           115          120          125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
           130          135          140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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ggatccctcc ttttctctcc cctgccctgc ccaggcccag atggccttga ctgtaaagcc
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agggtgctgcc tgacagggtc ttctctctcc gtctctgggc attgatccat ctctttgtcc
120
attcagatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcacccaac tctatgcctt acccctccca acccaacagc
240
atttgagctg tgcaaaatat acagacccaa gtcctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttctcacc
360
tccttgagc ctctctgct gcttctctat cccaacggcc ctgctccct ccttctctgc
420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttgggt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtg gctgccttgt cactctttat ttggaagcca
540
ctcaaacatt tccaagaag agggacctca gctggcaatc tggaaacctg gcccaggtct
600
gggcagatgt ctcaattct cctaccttcc cagtcttgtg atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcacccctca tgetgtaggg tcttgagcc ccatcctttc
720
tctactgggc cctggatatc tggctcctct ctcagctctg ccaactgatct ctgtgcctta
780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccagggtgat
 840
 gtgggtgcccc aaggctgggc tttgcagctg tggcccagct ccttagtgct gcccaggaga
 900
 caccaggctg ctccagaatga ggtgactgcg ggcaac
 936

<210> 4314
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 4314
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 Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
 20 25 30
 Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
 35 40 45
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
 50 55 60
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
 65 70 75 80
 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
 85 90 95
 Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
 100 105 110

<210> 4315
 <211> 573
 <212> DNA
 <213> Homo sapiens

<400> 4315
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 cagagcggatg accatgtgaa gacacaggga agagatgggcc acctaccacc acgccatggt
 120
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 180
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc
 240
 aagccatggt cacctaccca ccaagtcctg gtcgcctacc atccaaggag caggcctgga
 300
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 420
 ttctttgtca cagttgcatt agccagtgaa cctaccgggg cccttctgca gtcgcctggc
 480
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 540
 agacccgagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgcgc aaacataact ccagatatatt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca ttgggtgga aggaaaagaa ttctcttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatttt agctgaagct atggaatggt ttttgcagta tggtttatact
 300
 ggaaaggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcagtgtgcc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaaact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggtat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
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 720
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 744

<210> 4318

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4318

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 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4319

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 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
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Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20				25					30			
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35				40					45				
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50				55					60					
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65				70				75					80		
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90					95		
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100				105					110				
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115				120					125				

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 120
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<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
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 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
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 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
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 Trp Gln Val Leu Gly
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<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 840

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 960
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<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

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 35 40 45
 Pro Pro Asp Lys Glu Asp Met Arg Ser Ser Phe Arg Ser Asn Val Leu
 50 55 60
 Thr Gly Ser Ala Pro Gln Gln Asp Tyr Asp Lys Leu Lys Ala Leu Gly
 65 70 75 80
 Gly Glu Asn Ser Ser Lys Thr Gly Leu Ser Thr Ser Gly Asn Val Glu
 85 90 95
 Lys Asn Lys Ala Val Lys Arg Glu Thr Glu Ala Ser Ser Ile Asn Leu
 100 105 110
 Ser Val Tyr Glu Pro Phe Lys Val Arg Lys Ala Glu Asp Lys Leu Lys
 115 120 125
 Glu Ser Ser Asp Lys Val Leu Glu Asn Arg Val Leu Asp Gly Lys Leu
 130 135 140
 Ser Ser Glu Lys Asn Asp Thr Ser Leu Pro Ser Val Ala Pro Ser Lys
 145 150 155 160
 Thr Lys Ser Ser Ser Lys Leu Ser Ser Cys Ile Ala Ala Ile Ala Ala
 165 170 175
 Leu Ser Ala Lys Lys Ala Ala Ser Asp Ser Cys Lys Glu Pro Val Ala

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Arg Ala Ala Asp Lys Ser Pro Glu Ser Gln Asn Leu Ile Asp Gly Thr
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Lys Lys Pro Ser Leu Lys Gln Pro Asp Ser Pro Arg Ser Ile Ser Ser
      225      230      235      240
Glu Asn Ser Ser Lys Gly Ser Pro Ser Ser Pro Ala Gly Ser Thr Pro
      245      250      255
Ala Ile Pro Lys Val Arg Ile Lys Thr Ile Lys Thr Ser Ser Gly Glu
      260      265      270
Ile Lys Arg Thr Val Thr Arg Val Leu Pro Glu Val Asp Leu Asp Ser
      275      280      285
Gly Lys Lys Pro Ser Glu Gln Thr Ala Ser Val Met Ala Ser Val Thr
      290      295      300
Ser Leu Leu Ser Ser Pro Ala Ser Ala Val Leu Ser Ser Pro Pro
      305      310      315      320
Arg Ala Pro Leu Gln Ser Ala Val Val Thr Asn Ala Val Ser Pro Ala
      325      330      335
Glu Leu Thr Pro Lys Gln Val Thr Ile Lys Pro Val Ala Thr Ala Phe
      340      345      350
Leu Pro Val Ser Ala Val Lys Thr Ala Gly Ser Gln Val Ile Asn Leu
      355      360      365
Lys Leu Ala Asn Asn Thr Thr Val Lys Ala Thr Val Ile Ser Ala Ala
      370      375      380
Ser Val Gln Ser Ala Ser Ser Ala Ile Ile Lys Ala Ala Asn Ala Ile
      385      390      395      400
Gln Gln Gln Thr Val Val Val Pro Ala Ser Ser Leu Ala Asn Ala Lys
      405      410      415
Leu Val Pro Lys Thr Val His Leu Ala Asn Leu Asn Leu Leu Pro Gln
      420      425      430
Gly Ala Gln Ala Thr Ser Glu Leu Arg Gln Val Leu Thr Lys Pro Gln
      435      440      445
Gln Gln Ile Lys Gln Ala Ile Ile Asn Ala Ala Ala Ser Gln Pro Pro
      450      455      460
Lys Lys Val Ser Arg Val Gln Val Val Ser Ser Leu Gln Ser Ser Val
      465      470      475      480
Val Glu Ala Phe Asn Lys Val Leu Ser Ser Val Asn Pro Val Pro Val
      485      490      495
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Thr Arg

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<210> 4325

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 4325

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120

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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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10

15

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Ala Lys Arg Leu Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly					
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Ala Ala Cys Gly Gln Ser Leu Glu Arg Ser Lys Thr Leu Ala Glu					
	50		55		60
Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala					
	65		70		75
Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala					
		85		90	95
Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser					
	100		105		110
Phe Leu Gln Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro					
	115		120		125
Thr Gln Gly Glu Glu Gln Pro Pro Gln Pro Pro Leu Asp Pro Gln Asn					
	130		135		140
Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu					
	145		150		155
Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr					
		165		170	175
Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser					
	180		185		190
Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met					
	195		200		205
Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly					
	210		215		220
Phe Ser Asp Glu Arg His Gly Asp Val Val Val Val Arg Pro Met Arg					
	225		230		235
Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val					
		245		250	255
Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala					
	260		265		270
Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln					
	275		280		285
Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala					
	290		295		300
Gly Gly Ala Arg Val Cys Ala Val Cys Gly Cys Val Arg Val Val Ser					
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<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

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		20						25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35				40					45				
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50				55					60					
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65				70					75					80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
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<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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 Thr Ala Gly Lys Lys Leu Pro Glu Val Pro Pro Ser Glu Glu Glu Glu

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 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
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 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
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 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315 320
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
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 Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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 Arg Pro Pro Ser Pro Ile Lys Phe Asp Leu Asn Glu Pro Leu His Leu
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 Ser Phe Leu Gln Asn Ala Ala Lys Leu Tyr Ala Thr Val Tyr Cys Ile

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Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
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Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100              105              110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
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Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130              135              140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
      145              150              155              160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165              170              175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180              185              190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195              200              205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
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Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
      225              230              235              240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245              250              255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260              265              270
Gly Ile Glu Pro Thr Met Val val Gln Gly Val Lys Met Leu Tyr Val
      275              280              285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
      290              295              300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
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Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
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<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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<212> PRT

<213> Homo sapiens

<400> 4334

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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

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Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
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Gly	Glu	Arg	Met	Ala	Val	Asp	Met	Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu
			100					105					110		
Leu	Arg	Gln	Asp	Ile	Thr	Phe	Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu
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Val	Ser	Arg	Leu	Thr	Thr	Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys
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Leu	Val	Ser	Leu	Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met
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Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
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Leu	Arg	Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met
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Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
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Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
		260					265						270		
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
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Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
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Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
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<210> 4337
 <211> 461
 <212> DNA
 <213> Homo sapiens

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 Arg Arg Glu Gly Ala Thr Cys Cys Ser Val Glu Lys Gln Gln Ser Pro
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 Leu Gln Pro Ala Gln Leu Ala Phe Leu Thr Leu Ser Leu Pro Gly Leu
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 Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe
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<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
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Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
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Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
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Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
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Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr

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Val	Asn	Lys	Leu	Ala	Leu	Val	Phe	Leu	Ala	Cys	Val	Val	Leu	Ser	Ile
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Leu	Ala	Ile	Tyr	Ala	Gly	Val	Ile	Lys	Ser	Ala	Phe	Asp	Pro	Pro	Asp
290					295					300					
Ile	Pro	Val	Cys	Leu	Leu	Gly	Asn	Arg	Thr	Leu	Ser	Arg	Arg	Ser	Phe
305					310					315					
Asp	Ala	Cys	Val	Lys	Ala	Tyr	Gly	Ile	His	Asn	Asn	Ser	Ala	Thr	Ser
325					330					335					
Ala	Leu	Trp	Gly	Leu	Phe	Cys	Asn	Gly	Ser	Gln	Pro	Ser	Ala	Ala	Cys
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Asp	Glu	Tyr	Phe	Ile	Gln	Asn	Asn	Val	Thr	Glu	Ile	Gln	Gly	Ile	Pro
355					360					365					
Gly	Ala	Ala	Ser	Gly	Val	Phe	Leu	Glu	Asn	Leu	Trp	Ser	Thr	Tyr	Ala
370					375					380					
His	Ala	Gly	Ala	Phe	Val	Glu	Lys	Lys	Gly	Val	Pro	Ser	Val	Pro	Val
385					390					395					
Ala	Glu	Glu	Ser	Arg	Ala	Ser	Ala	Leu	Pro	Tyr	Val	Leu	Thr	Asp	Ile
405					410					415					
Ala	Ala	Ser	Phe	Thr	Leu	Leu	Val	Gly	Ile	Tyr	Phe	Pro	Ser	Val	Thr
420					425					430					
Gly	Ile	Met	Ala	Gly	Ser	Asn	Arg	Ser	Gly	Asp	Leu	Lys	Asp	Ala	Gln
435					440					445					
Lys	Ser	Ile	Pro	Thr	Gly	Thr	Ile	Leu	Ala	Ile	Val	Thr	Thr	Ser	Phe
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Val	Leu	Arg	Asp	Lys	Phe	Gly	Glu	Ala	Leu	Gln	Gly	Asn	Leu	Val	Ile
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Phe	Ser	Thr	Cys	Gly	Ala	Gly	Leu	Gln	Thr	Leu	Thr	Gly	Ala	Pro	Arg
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545					550					555					
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660					665					670					
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675					680					685					
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 Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu
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 Asp Lys His Met Glu Ala Gln Arg Ala Glu Asn Ile Arg Ser Leu
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 Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
 755 760 765
 Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
 770 775 780
 Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
 785 790 795 800
 Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
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 Asp Thr Thr Ala Ala His Gln Ala Leu Val Ala Lys Asn Val Asp
 820 825 830
 Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val
 835 840 845
 Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu
 850 855 860
 Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr
 865 870 875 880
 Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln
 885 890 895
 Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu
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 930 935 940
 Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser
 945 950 955 960
 His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
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 Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
 980 985 990
 Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
 995 1000 1005
 Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
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<211> 693

<212> DNA

<213> Homo sapiens

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<210> 4342
 <211> 103
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
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 <211> 499
 <212> DNA
 <213> Homo sapiens

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 <211> 118
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Gly Glu Arg Arg Thr Asp Phe Arg Gly Gly Pro Gly His Ala Ala
 50 55 60
 Glu Thr Thr Arg Leu Pro Gly Gly Gln Asp Arg Pro Cys Pro Asp
 65 70 75 80
 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser
 85 90 95
 Ser Ser Val Ile Arg Leu Ser Asp Cys Ser Pro Phe Ile Ser Phe Ala
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 <211> 349
 <212> DNA
 <213> Homo sapiens

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 180

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 240
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<210> 4346
 <211> 116
 <212> PRT
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 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
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 <211> 353
 <212> DNA
 <213> Homo sapiens

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<210> 4348
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 <212> PRT
 <213> Homo sapiens

<400> 4348

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Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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1080

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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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			20					25					30		
Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
			35				40					45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
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65				70				75						80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
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Pro

<210> 4351
<211> 4703
<212> DNA
<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Gln Ser Ser Trp Gly Tyr Arg His Ser Pro Pro Arg Leu Ala Asn Phe
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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4354

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 Gln Tyr Ile Ser Ser Val Pro Trp Tyr Ile Asp Pro Ser Lys Arg Pro
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 Glu Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser
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<211> 1741

<212> DNA

<213> Homo sapiens

<400> 4355

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<211> 509

<212> PRT

<213> Homo sapiens

<400> 4356

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Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
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Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala			
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Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
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Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
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Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
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His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro			
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Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
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Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
	180	185	190
Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
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Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp			
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Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg			
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Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
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Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
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Gln Asn Gly Phe Thr Ala Asp Asp Ile Asn Lys Val Val Leu Cys Gly			
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Pro Ala Val Glu Leu Leu Asn Ser Ile Pro Pro Asp Glu Val Ile Pro			
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Ile Gly Ala Ala Ile Glu Ala Gly Ile Leu Ile Gly Lys Glu Asn Leu			
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Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
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Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

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 <211> 421
 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
35     40     45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
50     55     60
Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Leu Gly Ala Arg Tyr
65     70     75     80
Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
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Gly Met Gly Arg Phe Cys Arg Ser Leu Lys Val Gly Leu Gln Ile Ser
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<212> DNA

<213> Homo sapiens

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 aggaaaaagg agggcgagaa tgaccacaca acacagcctt ggaccatgag cagaagcgct
 3120
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 3180
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 3240
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 3300
 ccaggaggag gacacggcgc ccgagagcaa ggcacaacct cgagtctctg gggcgagag
 3360
 aacttaggag agaagcacgg aggagccccc ggcagagcac ccgcccccg gccccagcct
 3420
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 3540
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 3660
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<210> 4360

<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Ser	Asn	Leu	Pro	Thr	Pro	Asp	Val	Thr	Thr	Gly	Thr	Arg	Met	Glu	Thr
			20				25						30		
Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
		35					40				45				
Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
	50				55						60				
Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70				75						80
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
		115					120				125				
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
	130				135						140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
145					150					155					160
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
			165						170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

180										185										190									
Arg	Val	Ala	Gly	Ser	Gly	Lys	Pro	Pro	Ile	Phe	Glu	Val	Asp	Pro	Arg														
195										200										205									
Gly	Cys	Pro	Phe	Thr	Ile	Lys	Leu	Ser	Ala	Arg	Lys	Asp	His	Glu	Gly														
210										215										220									
Ser	Cys	Asp	Tyr	Arg	Pro	Val	Arg	Cys	Pro	Asn	Asn	Pro	Ser	Cys	Pro														
225										235										240									
Pro	Leu	Leu	Arg	Met	Asn	Leu	Glu	Ala	His	Leu	Lys	Glu	Cys	Glu	His														
245										250										255									
Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asn	Gln														
260										265										270									
Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Gly	Thr	Cys	Arg	Phe	Glu	Gly	Leu	Lys													
275										280										285									
Glu	Phe	Leu	Gln	Gln	Thr	Asp	Asp	Arg	Phe	His	Glu	Met	His	Val	Ala														
290										300										305									
Leu	Ala	Gln	Lys	Asp	Gln	Glu	Ile	Ala	Phe	Leu	Arg	Ser	Met	Leu	Gly														
310										315										320									
Lys	Leu	Ser	Glu	Lys	Ile	Asp	Gln	Leu	Glu	Lys	Ser	Leu	Glu																

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        610                      615                      620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu
625                      630                      635                      640
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu
        645                      650                      655
Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys
        660                      665                      670

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<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

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<400> 4361
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120
atgagctgga gggcccacta cggggaggtc tactctgtgg agttcagcta tgatgagaac
180
accgtgtaca gcatcggcga ggacgggaag gttagcggtc ccaggattca gataagagag
240
caccgggatg acatgtgggc cggtgcagg ttgtggccat acctgttact agctctgcaa
300
cctggggcct ctttttgcag ctttggatc tgtagaatag ggataaacta gtaattcgtc
360
ttacaatcct tgcgaggttt tagtgaattc agtgggagtt ggctatcctt atgaaggaa
420
gtacaaaaaa ttactatctt taccatagat gtatctgtgg ggtctggatt tagggctgag
480
tttgctttgc tgggcttggt agtgagtggc ccaggacca ctcattggatg tgtagtttgc
540
tgagtggctg gggacagctt cttacatgtg taca
574

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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

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<400> 4362
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Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe
20          25          30
Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
35          40          45
Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
50          55          60
Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
65          70          75          80
His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
85          90          95
Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

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	100	105	110
Ile Gly Ile Asn			
115			
<210> 4363			
<211> 1222			
<212> DNA			
<213> Homo sapiens			
<400> 4363			
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ttgctttaat	ttgaaaaaat	tgattggggg	ctcttcccg
120	atgcttagacc	ccaggggccag	ggaattcag
180	agcttagacc	ccaggggccag	ggaattcag
240	ggggtaattc	cagggtcccc	ctgccagccc
300	aggactagat	tctgtctctc	caaagtggcc
360	gctgtgtctt	ttcaggagca	gttggtccag
420	catccagca	caggggctca	gcgccctggc
480	accagacat	ccatgaggta	gtccaattcg
540	cccgcccat	cctcaggggc	tggtttgagg
600	tcatacatag	aggtgtcaat	atcctcaaac
660	cgagtgctg	ggcccagcag	gtccaaggca
720	cggcctgggt	gccccctctc	tgccaagggt
780	ctgaggtcct	caggagggt	ggccatggag
840	aagttgtcag	ccacctgggg	gggtcagggt
900	gtgtccatag	acgcnnntgg	atgcgcccga
960	gttcggctc	actctgctgc	aggctgtggt
1020	gagctagagg	ccaaggccgg	gggtgacctg
1080	caggagtcga	ctgccagagg	ttcctctctc
1140	ttgtctcag	cttctgtcac	tagcggccaa
1200	atcaggaaac	ggcggcggca	gcctgccttg
1222	tcgcgagacg	cagttctagc	ga
<210> 4364			

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
 Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser
 1 5 10 15
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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 120
 gtcaccgagc acatcaagcc gggtgtggcg attggcggta cgctgttccc gacctactac
 180
 cgcagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat
 240
 cgcgagggcg acaagctggg ggcgggtgctg gagaacgaat acaccggcgc caaggaagag
 300
 cgggtggtcg accaggtggg ggtggagaac ggtgtgcgtc cggatgagga aatctactac
 360
 gggctcaagg aaggttcgcy caacaaggcg cagatcgatg tcgaagccct gttcgcgacg
 420
 aagccgcagc cttcgtgtaa tactcttaat gaagaggcag cgggtgacg
 469

<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
 Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr
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 Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala
 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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120
atctacgaga ctccccgggg ccagaccca gccctcctgg aggccacagg gggagcagct
180
ggagctggtg gggctggcgg cggggaggat gaagagaacc gagagcaccg tgtccgcagg
240
atccatgtcc ggcgccatat caccacgac ggcgctctcc atggccaaca aattgtcttc
300
aaggactgac ctctgaccct cccctctgct tcctcttgcc ttgggaccca gtcctctctc
360
ctttccctcc ccttcccaga cttttgcccc ggcctctgct gccaaagtcg ggttcctctc
420
ctgtcccttc attgcatggc acagctcact ttggcccttc tcaccctgct ccaaccccat
480
tgctaacaac atggtacatt cgggccccac cactcagagc ctccgaagc caacacttgt
540
ccccaccctg gccctgcgtc cttccctctc cagctgggta agagggtatt agaattccct
600
ttctcttttt ttagtgcac gtccatgcca aagtgtgcgg cccttcctga catcaccaca
660
gtctgagcag cctcccgctc cctgcagggt agtcgcggcc ctctcccca ccatcctccc
720
tacctcctta actttgtact agactggcct gggcctgccc agctcagcgt tatcagctcg
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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368
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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
 100

<210> 4369
 <211> 1264
 <212> DNA
 <213> Homo sapiens

<400> 4369
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 120
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg
 180
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa
 300
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 360
 ccagacagct ccgatctgta ctoggagatc ggggccatca ccaggtcagc caaggttgac
 420
 tttgatcaac ttcaggataa tttatgtcag atggagagaa gatgcaaagc ttcatgggat
 480
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 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg
 660
 aacataaaca aattctgcag gattattagt gaatttgac tagagtatcg cacaaccagg
 720
 gaaaggggtt tgcagcagaa acagaaacgg gccaaacaca gagagagaaa taagaccaga
 780
 gggaagatga tcaccgattc tggcaagttc tccggcagtt ctccggcgcc cccaagccag
 840
 ccgcagggtc tgagctatgc ggaggacgcg gctgagcacg agaacatgaa ggctgtgtctg
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 aaaacctcgt cccctccag gagtcccctg cacatacctt ctccatcgtg tcagctgtgtg
 960

ttctcttgat tccgtgacac ccggtttatt agttcaaaag tgtgacacct ttctctgggca
 1020
 aggaacagcc cctttaagga gcaaatcaact tctgtcacag ttattatggt aatatgaggg
 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaacccc
 1140
 aaacttgtag acaaaagaaa gcacagattg ttacctgtt gtggatttta gatgtaacaa
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 1260
 tgcc
 1264

<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275				280				285				
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr
	290					295					300		
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln
305					310					315			320
Phe	Ser												

<210> 4371

<211> 907

<212> DNA

<213> Homo sapiens

<400> 4371

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gccatcgaca taggcgggtc gttaaccaag ctggcctact attcaacggt acagcacaaa
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240
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300
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360
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420
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480
gtgctcaaga acatccccc tgaggccttc gtgtaccaga aggattccga ccctgagttc
540
cggttccaga ccaaccaccc ccacatttcc ccctatcttc ttgtcaatat cggctctgga
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660
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720
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780
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atgatca
907

<210> 4372

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4372

Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly

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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
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Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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      295
      300

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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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120
ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatttc aaggagaaaa
180
gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240
tgtgcattgt tggtgggatt ctgctcgtgt tccaaatcat cgcccttctg gtggagggct
300

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tgattgtccc agggcccaca acggcagtggt cctacatgtc ggtgaaatgt gtggatgccc
 360
 gtaagaacca tcacaagaca aaatgggttcg tgccttgggg acccaatcat tgtgacaaga
 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
 ttcacattcc cctccccac atggagatga gtccttgggt ccaattcatg ctgtttatcc
 540
 tgcagctgga cattgccttc aagctaaaca accaaatcag agaaaatgca gaagtctcca
 600
 tggacgtttc cctggcttac cgtgatgacg cgtttgctga gtggactgaa atggcccatg
 660
 aaagagtacc acggaaactc aaatgcacct tcacatctcc caagactcca gagcatgagg
 720
 gccgttacta tgaatgtgat gtccttcctt tcattggaat tgggtctgtg gcccataagt
 780
 ttacaccttt aaacatccgg ctgcctgtga atgagaagaa gaaaatcaat gtgggaattg
 840
 gggagataaa ggatatccgg ttggtgggga tccacaaaaa tggaggcttc accaaggtgt
 900
 ggtttgccat gaagaccttc cttacgcccc gcattcttcat cattatgggtg tggatttgga
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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile
 85 90 95
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe
 100 105 110
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala
 130 135 140
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu
 145 150 155 160
 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr
 165 170 175
 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His

			180					185				190				
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys	
			195					200				205				
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile	
			210					215				220				
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe	
225					230					235						240
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile	
					245					250					255	
Thr	Met	Met	Ser	Arg	Pro	Pro	Val	Leu	Glu	Lys	Val	Ile	Phe	Ala		
			260					265				270				

<210> 4375

<211> 1966

<212> DNA

<213> Homo sapiens

<400> 4375

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120	cgcttgacgg	ccagcttttg	gagggcccgcg	cccgggatgc	tacacacaac
180	cagcatgtgc	cagagacacg	ctggccaatc	gtgtactcgc	cgcgtacaaa
240	atgggectgg	agaagctgca	tccttttgat	gcggaaaaat	ggggcaaaat
300	ctaaaagaag	agaagcttct	gtctgacagc	atgctggtgg	aggcgcgsga
360	gaggacctcg	tggtggtgca	cacgaggcgc	tatcttaaat	agctcaagat
420	gttgctacca	tcacagaaat	ccccccgctt	atcttctctc	ccaacttctc
480	aagggtctga	ggcccccttg	gaccacagca	ggaggaacca	taatggcggg
540	gtggagcgag	gctgggccat	caacgtgggg	ggtggcttcc	accactgctc
600	ggcgggggct	tctgtgccta	tgcgacatc	acgctcgcca	tcaagtttct
660	gtggagggga	tctccagggc	taccatcatt	gatcttgatg	cccatacagg
720	gagcgagact	tcatggacga	caagtgtgtg	acatgcatgg	atgtctacaa
780	taccacgggg	acgcctttgc	caagcaggcc	atcaggcgga	aggtggagct
840	acagaggatg	atgagtacct	ggataaggtg	gagaggaaca	tcaagaaatc
900	cacctgcccg	acgtggtggt	atacaatgca	ggcacgcaca	tcctcgaggg
960	ggggggctgt	ccatcagccc	agcgggcata	gtgaagcggg	atgagctggt
1020	gtccgtggcc	gccgggtgcc	catacttatg	gtgacctcag	gcgggtacaa
1080					gaagcgcaac

gcccgcacatca ttgctgactc cataacttaat ctgtttggcc tggggctcat tgggcctgag
 1140
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 1440
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 1560
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 1620
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 1680
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 1860
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 1966

<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

Lys Val Pro Ala Leu Tyr Thr Thr Thr Ser Gly Arg Cys Ser Trp Arg
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 Asp Phe Leu Met Phe Leu Ser Thr Leu Ser Arg Tyr Ser Ser Ser Ser
 20 25 30
 Val Pro His Ser Ser Ser Thr Phe Arg Leu Thr Ala Ser Phe Gly Arg
 35 40 45
 Ala Gly Pro Gly Met Leu His Thr Thr Gln Leu Tyr Gln His Val Pro
 50 55 60
 Glu Thr Arg Trp Pro Ile Val Tyr Ser Pro Arg Tyr Asn Ile Thr Phe
 65 70 75 80
 Met Gly Leu Glu Lys Leu His Pro Phe Asp Ala Gly Lys Trp Gly Lys
 85 90 95
 Val Ile Asn Phe Leu Lys Glu Glu Lys Leu Leu Ser Asp Ser Met Leu
 100 105 110
 Val Glu Ala Arg Glu Ala Ser Glu Glu Asp Leu Leu Val Val His Thr
 115 120 125
 Arg Arg Tyr Leu Asn Glu Leu Lys Trp Ser Phe Ala Val Ala Thr Ile

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      130              135              140
Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
145              150              155
Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
      165              170              175
Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
305              310              315
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
      325              330              335
Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
      370              375              380
Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
385              390              395

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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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120
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180
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240
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300
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360
gccgaggcgg agcacaagat tcgactccgg ctgaagcccc ccttgagagac cctggacgag
420

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ctgctggcgg cgggcgaggc cggcaccttc gacgtggccg tgggtggatgc ggacaaggag
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 540
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 660
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 812

<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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 Leu Leu Pro Pro Glu Asp Ser Arg Leu Trp Gln Tyr Leu Leu Ser Arg
 20 25 30
 Ser Met Arg Glu His Pro Ala Leu Arg Ser Leu Arg Leu Leu Thr Leu
 35 40 45
 Glu Gln Pro Gln Gly Asp Ser Met Met Thr Cys Glu Gln Ala Gln Leu
 50 55 60
 Leu Ala Asn Leu Ala Arg Leu Ile Gln Ala Lys Ala Leu Asp Leu
 65 70 75 80
 Gly Thr Phe Thr Gly Tyr Ser Ala Leu Ala Leu Ala Leu Pro
 85 90 95
 Ala Asp Gly Arg Val Val Thr Cys Glu Val Asp Ala Gln Pro Pro Glu
 100 105 110
 Leu Gly Arg Pro Leu Trp Arg Gln Ala Glu Ala Glu His Lys Ile Arg
 115 120 125
 Leu Arg Leu Lys Pro Ala Leu Glu Thr Leu Asp Glu Leu Leu Ala Ala
 130 135 140
 Gly Glu Ala Gly Thr Phe Asp Val Ala Val Val Asp Ala Asp Lys Glu
 145 150 155 160
 Asn Cys Ser Ala Tyr Tyr Glu Arg Cys Leu Gln Leu Leu Arg Pro Gly
 165 170 175
 Gly Ile Leu Ala Val Leu Arg Val Leu Trp Arg Gly Lys Val Leu Gln
 180 185 190
 Pro Pro Lys Gly Asp Val Ala Ala Glu Cys Val Arg Asn Leu Asn Glu
 195 200 205
 Arg Ile Arg Arg Asp Val Arg Val Tyr Ile Ser Leu Leu Pro Leu Gly
 210 215 220
 Asp Gly Leu Thr Leu Ala Phe Lys Ile
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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180
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240
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300
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360
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420
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480
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540
tactactcct ttggcctcgc taacgagaag agagccaagg agttggaggc cacttttggc
600
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720
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780
gtagacgttg tgccatcttc attctgcgtc aagcactgtc gaaacctgca gaaatgtca
840
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960
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1020
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 1800
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 1920
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 1980
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 2040
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 2220
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 2340
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 2347

<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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				20				25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
			35				40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
			50			55					60				
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65					70				75				80		
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
				85					90				95		
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
			100					105					110		
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
			115				120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

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 Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala
 145 150 155 160
 Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg
 165 170 175
 Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln
 180 185 190
 Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys
 195 200 205
 Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val
 210 215 220
 Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln
 225 230 235 240
 Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr
 245 250 255
 Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His
 260 265 270
 Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys
 275 280 285
 Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu
 290 295 300
 Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln
 305 310 315 320
 Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu
 325 330 335
 Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu
 340 345 350
 Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu
 355 360 365
 Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser
 370 375 380
 Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn
 385 390 395 400
 Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu
 405 410 415
 Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu
 420 425 430
 Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys
 435 440 445
 Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys
 450 455 460
 Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu
 465 470 475 480
 Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn
 485 490 495
 Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln
 500 505 510
 Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly
 515 520 525
 Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys
 530 535 540
 Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser
 545 550 555 560
 Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr

565										570					575				
Leu	Asp	Leu	Gly	Gln	Asn	Pro	Leu	Gly	Ser	Ser	Gly	Val	Lys	Met	Leu				
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Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu				
595										600					605				
Lys	Ile	Asp	Asp	Phe	Asn	Asp	Gly	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile				
610										615					620				
Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro				
625										630					635				
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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300	300	300	300	300	300
360	360	360	360	360	360
420	420	420	420	420	420
480	480	480	480	480	480
540	540	540	540	540	540
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660	660	660	660	660	660
720	720	720	720	720	720
780	780	780	780	780	780
840	840	840	840	840	840
900	900	900	900	900	900
960	960	960	960	960	960
1020	1020	1020	1020	1020	1020
1080	1080	1080	1080	1080	1080

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 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgta tgctttgggt
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 1620
 aaaaaaaaaa aaaaaaaaa
 1638

<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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 Gln Arg Ile Ala Glu Glu Thr Ile Leu Lys Ser Gln Val Asp Lys Arg
 35 40 45
 Phe Ser Ala His Tyr Asp Ala Val Glu Ala Glu Leu Lys Ser Ser Ala
 50 55 60
 Val Gly Leu Val Thr Leu Asn Asp Met Lys Ala Arg Gln Glu Ala Leu
 65 70 75 80
 Val Arg Glu Arg Glu Arg Gln Leu Ala Lys Arg Gln His Leu Glu Glu
 85 90 95
 Gln Arg Leu Gln Gln Glu Arg Gln Arg Glu Gln Glu Gln Arg Arg Glu
 100 105 110
 Arg Lys Arg Lys Ile Ser Cys Leu Ser Phe Ala Leu Asp Asp Leu Asp
 115 120 125
 Asp Gln Ala Asp Ala Ala Glu Ala Arg Arg Ala Gly Asn Leu Gly Lys
 130 135 140
 Asn Pro Asp Val Asp Thr Ser Phe Leu Pro Asp Arg Asp Arg Glu Glu
 145 150 155 160
 Glu Glu Asn Arg Leu Arg Glu Glu Leu Arg Gln Glu Trp Glu Ala Gln
 165 170 175
 Arg Glu Lys Val Lys Asp Glu Glu Met Glu Val Thr Phe Ser Tyr Trp
 180 185 190
 Asp Gly Ser Gly His Arg Arg Thr Val Arg Val Arg Lys Gly Asn Thr
 195 200 205
 Val Gln Gln Phe Leu Lys Lys Ala Leu Gln Gly Leu Arg Lys Asp Phe

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                210                215                220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225                230                235                240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
                245                250                255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
                260                265                270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
                275                280                285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
                290                295                300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305                310                315                320
Lys Tyr Thr Ile Arg
                325

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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<400> 4383
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120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
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240
gtggcaaagg ctggacttgc ctctcgggtg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
360
caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
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Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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	85		90		95										
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
	100						105						110		
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
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Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
	130					135									

<210> 4385

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4385

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120
ggtcctggtc agagtcggag tcagagtccc aggaggggag tggagggtc aggcaactggt
180
gccccttggt gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtggaggc
240
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300
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<210> 4386

<211> 85

<212> PRT

<213> Homo sapiens

<400> 4386

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Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20				25						30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
	35					40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe

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      50              55              60
Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
65              70              75              80
Gln Ala Ala Glu Ser
      85

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<210> 4387
<211> 341
<212> DNA
<213> Homo sapiens

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ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaaaaaa
180
aaaaccggga aaattttttt tcccccccc ccaaaaaaaa aaaaaaaacc gggggggccc
240
cctttttttt gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
300
aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
341

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<210> 4388
<211> 113
<212> PRT
<213> Homo sapiens

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<400> 4388
Gly Gly Gly Leu Pro Ile Phe Phe Pro Phe Met Gly Gly Gly Phe Phe
1              5              10              15
Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Arg Gly Phe
20              25              30
Ser His Pro Lys Lys Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
35              40              45
Gly Gly Phe Phe Pro Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
50              55              60
Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
65              70              75              80
Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
85              90              95
Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
100              105              110
Val

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<210> 4389
<211> 1895
<212> DNA
<213> Homo sapiens

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<400> 4389

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120
ccagcggtgt acggcgattc tgcccgtagg aaggcattgc gtggagctct gcgagcctcc
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240
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300
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360
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540
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660
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720
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900
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1620

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1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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		20					25						30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35					40					45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50			55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65				70					75					80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85						90					95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
			100				105						110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115					120					125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145				150						155					160
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165						170					175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180						185						190	
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195					200					205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210			215						220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225				230						235					240
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245						250					255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280						285		
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
305		310		315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				320
	325		330	335

<210> 4391

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4391

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240
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<210> 4392

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4392

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agtaatttga gaaaactaag aaatgtatca aatcgaaac ctgtcccgct cattgggtcca
720
aaattgaaga gaaggtggcc aatttcttat tgtcgggaac tcaaaggtta ttccattcct
780
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840
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960
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1020
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1080
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2160
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2171

<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394
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 35 40 45
 Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
 50 55 60
 Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Cys Asp Ile Ala Asn
 65 70 75 80
 Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
 85 90 95
 Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
 100 105 110
 Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
 115 120 125
 Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
 130 135 140
 Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
 145 150 155 160
 Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
 165 170 175
 Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
 180 185 190
 Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
 195 200 205
 Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
 210 215 220
 Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
 225 230 235 240
 Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
 245 250 255
 Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
 260 265 270
 Tyr Ala Ala Tyr Val Thr Val Gly Ile Thr Ser Val Ile Lys Leu
 275 280 285
 Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
 290 295 300
 Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
 305 310 315 320
 Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
 325 330 335
 Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
 340 345 350
 Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
 355 360 365
 Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

370	375	380
Leu Ser Asp Ala Ser His Leu Pro Lys Ala Gly Gly Val Phe Thr Pro		
385	390	395
Gly Ala Ala Phe Ser Lys Thr Lys Leu Ile Asp Arg Leu Asn Lys His		400
	405	410
Gly Ile Glu Phe Ser Val Ile Ser Ser Ser Glu Val		415
	420	425

<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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Ile	Leu	Met	Ala	Lys	Glu	Arg	Leu	Glu	Ala	Leu	Arg	Thr	Ala	Phe	Glu
		20						25					30		
Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
		35					40					45			
Ser	Thr	Glu	Ser	Ile	Arg	Leu	Glu	Val	Gly	Val	Thr	Gly	Glu	Ser	Gly
		50				55				60					
Ala	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ala	Leu	Arg	Gly	Leu	Glu	Ala	Glu
65					70					75				80	
Asp	Pro	Gly	Ala	Ala	Leu	Thr	Gly	Val	Met	Glu	Thr	Thr	Met	Gln	Pro
			85					90						95	
Ser	Pro	Tyr	Pro	His	Pro	Gln	Phe	Pro	Asp	Val	Thr	Leu	Trp	Asp	Leu
			100					105					110		
Pro	Gly	Ala	Gly	Ser	Pro	Gly	Cys	Pro	Ala	Asp	Lys	Tyr	Leu	Lys	Gln
		115				120					125				
Val	Asp	Phe	Ser	Arg	Tyr	Asp	Phe	Phe	Leu	Leu	Val	Ser	Pro	Arg	Arg
		130				135					140				
Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
145					150					155				160	
Lys	Lys	Phe	Tyr	Phe	Val	Arg	Thr	Lys	Val	Asp	Glu	Asp	Leu	Ala	Ala
			165					170						175	
Thr	Arg	Thr	Gln	Arg	Pro	Ser	Gly	Phe	Arg	Glu	Ala	Ala	Val	Leu	Gln

180 185 190
 Glu Ile Arg Asp His Cys Ala Glu Arg Leu Arg Glu Ala Gly Val Ala
 195 200 205
 Asp Pro Arg Ile Phe Leu Val Ser Asn Leu Ser Pro Ala Arg Tyr Asp
 210 215 220
 Phe Pro Thr Leu Val Ser Thr Trp Glu His Asp Leu Pro Ser His Arg
 225 230 235 240
 Arg His Ala Gly Leu Leu Ser Leu Pro Asp Ile Ser Leu Glu Ala Leu
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 Gln Lys Lys Lys Ala Met Leu Gln Glu Gln Val Leu Lys Thr Ala Leu
 260 265 270
 Val Leu Gly Val Ile Gln Ala Leu Pro Val Pro Gly Leu Ala Ala Ala
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 Tyr Asp Asp Ala Leu Leu Ile His Ser Leu Arg Gly Tyr His Arg Ser
 290 295 300
 Phe Gly Leu Asp Asp Ser Leu Ala Lys Leu Ala Glu Gln Val Gly
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 Lys Gln Ala Gly Asp Leu Arg Ser Val Ile Arg Ser Pro Leu Ala Asn
 325 330 335
 Glu Val Ser Pro Glu Thr Val Leu Arg Leu Tyr Ser Gln Ser Ser Asp
 340 345 350
 Gly Ala Met Arg Val Ala Arg Ala Phe Glu Arg Gly Ile Pro Val Phe
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 Leu Gln Gly Cys Leu Asn Glu Met Ala Glu Asp Ala Gln Arg Val Arg
 385 390 395 400
 Ile Lys Ala Leu Glu Asp Asp Glu Pro Gln Pro Glu Val Ser Leu Glu
 405 410 415
 Val Ala Ser Asp Asn Gly Val Glu Lys Gly Gly Ser Gly Glu Gly Gly
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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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Asn	Ser	Pro	Val	Leu	Leu	Ser	Arg	Leu	His	Phe	Glu	Lys	Asp	Ala	Asp
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Ser	Ser	Glu	Arg	Ile	Ile	Ala	Pro	Met	Arg	Trp	Gly	Leu	Val	Pro	Ser
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Trp	Phe	Lys	Glu	Ser	Asp	Pro	Ser	Lys	Leu	Gln	Phe	Asn	Thr	Thr	Asn
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Cys	Arg	Ser	Asp	Thr	Val	Met	Glu	Lys	Arg	Ser	Phe	Lys	Val	Pro	Leu
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Gly	Lys	Gly	Arg	Arg	Cys	Val	Val	Leu	Ala	Asp	Gly	Phe	Tyr	Glu	Trp
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Gln	Arg	Cys	Gln	Gly	Thr	Asn	Gln	Arg	Gln	Pro	Tyr	Phe	Ile	Tyr	Phe
		130				135				140					
Pro	Gln	Ile	Lys	Thr	Glu	Lys	Ser	Gly	Ser	Ile	Gly	Ala	Ala	Asp	Ser
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Pro	Glu	Asn	Trp	Glu	Lys	Val	Trp	Asp	Asn	Trp	Arg	Leu	Leu	Thr	Met
			165					170						175	
Ala	Gly	Ile	Phe	Asp	Cys	Trp	Glu	Pro	Pro	Glu	Gly	Gly	Asp	Val	Leu
			180					185					190		
Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp
		195				200					205				
Ile	His	His	Arg	Met	Pro	Ala	Ile	Leu	Asp	Gly	Glu	Glu	Ala	Val	Ser

210		215		220
Lys Trp Leu Asp Phe Gly Glu Val Ser Thr Gln Glu Ala Leu Lys Leu				
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Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val				
	245		250	255
Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu				
	260		265	270
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu				
	275		280	285
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro				
	290		295	300
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln				
	305		310	315
Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln				
	325		330	335
Trp Leu Lys Arg Glu Lys Glu Glu Glu Pro Val Ala Lys Arg Pro Tyr				
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Ser Gln				

<210> 4399
 <211> 723
 <212> DNA
 <213> Homo sapiens

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 723

<210> 4400

<211> 241
 <212> PRT
 <213> Homo sapiens

<400> 4400
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 35 40 45
 Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
 50 55 60
 Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
 65 70 75 80
 Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
 85 90 95
 Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
 100 105 110
 Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
 115 120 125
 Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
 130 135 140
 Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
 145 150 155 160
 Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
 165 170 175
 Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
 180 185 190
 Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
 195 200 205
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 <212> DNA
 <213> Homo sapiens

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<210> 4402

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4402

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		20						25				30			
Thr	Ala	Arg	Lys	Ser	Ile	Thr	Val	Ile	Cys	Asp	Phe	Tyr	Ser	Leu	Ile
		35					40					45			
Arg	Leu	His	Phe	Ile	Pro	Arg	Leu	Gly	Ser	Arg	Ala	Asp	Leu	Ile	Lys
		50				55				60					
Gln	Tyr	Gly	Arg	Trp	Ala	Val	Val	Ser	Gly	Ala	Thr	Asp	Gly	Ile	Gly
65					70				75					80	
Lys	Ala	Tyr	Ala	Glu	Glu	Leu	Ala	Ser	Arg	Gly	Leu	Asn	Ile	Ile	Leu
			85						90				95		
Ile	Ser	Arg	Asn	Glu	Glu	Lys	Leu	Gln	Val	Val	Ala	Lys	Asp	Ile	Ala
			100					105					110		
Asp	Thr	Tyr	Lys	Val	Glu	Thr	Asp	Ile	Ile	Val	Ala	Asp	Phe	Ser	Ser
		115					120					125			
Gly	Arg	Glu	Ile	Tyr	Leu	Pro	Ile	Arg	Glu	Ala	Leu	Lys	Asp	Lys	Asp
		130				135					140				
Val	Gly	Ile	Leu	Val	Asn	Asn	Val	Gly	Val	Phe	Tyr	Pro	Tyr	Pro	Gln

145		150		155		160									
Tyr	Phe	Thr	Gln	Leu	Ser	Glu	Asp	Lys	Leu	Trp	Asp	Ile	Ile	Asn	Val
			165						170					175	
Asn	Ile	Ala	Ala	Ala	Ser	Leu	Met	Val	His	Val	Val	Leu	Pro	Gly	Met
			180					185					190		
Val	Glu	Arg	Lys	Lys	Gly	Ala	Ile	Val	Thr	Ile	Ser	Ser	Gly	Leu	Leu
		195						200					205		
Leu	Gln	Pro	Thr	Pro	Gln	Leu	Ala	Ala	Phe	Ser	Ala	Ser	Lys	Ala	Tyr
	210					215					220				
Leu	Asp	His	Phe	Ser	Arg	Ala	Leu	Gln	Tyr	Glu	Tyr	Ala	Ser	Lys	Gly
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<210> 4403

<211> 4237

<212> DNA

<213> Homo sapiens

<400> 4403

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<210> 4404

<211> 779

<212> PRT

<213> Homo sapiens

<400> 4404

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 35 40 45
 Asn Asn His Gly Asn Phe Gln Gly Asp Ser Asn Phe Asn Arg Met Trp
 50 55 60
 Gln Pro Glu Trp Gly Met His Gln Gln Pro Pro His Pro Pro Pro Asp
 65 70 75 80
 Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro
 85 90 95
 Ser Glu Asp Ser Asn Ser Gln Asp Ser Gly Glu Phe Ala Pro Asp Asn
 100 105 110
 Arg His Ile Phe Asn Gln Asn Asn His Asn Phe Gly Gly Pro Pro Asp
 115 120 125
 Asn Phe Ala Val Gly Pro Val Asn Gln Phe Asp Tyr Gln His Gly Ala
 130 135 140
 Ala Phe Gly Pro Pro Gln Gly Gly Phe His Pro Pro Tyr Trp Gln Pro
 145 150 155 160
 Gly Pro Pro Gly Pro Pro Ala Pro Pro Gln Asn Arg Arg Glu Arg Pro
 165 170 175
 Ser Ser Phe Arg Asp Arg Gln Arg Ser Pro Ile Ala Leu Pro Val Lys
 180 185 190
 Gln Glu Pro Pro Gln Ile Asp Ala Val Lys Arg Arg Thr Leu Pro Ala
 195 200 205
 Trp Ile Arg Glu Gly Leu Glu Lys Met Glu Arg Glu Lys Gln Lys Lys
 210 215 220
 Leu Glu Lys Glu Arg Met Glu Gln Gln Arg Ser Gln Leu Ser Lys Lys
 225 230 235 240
 Lys Lys Lys Ala Thr Glu Asp Ala Glu Gly Gly Asp Gly Pro Arg Leu
 245 250 255
 Pro Gln Arg Ser Lys Phe Asp Ser Asp Glu Glu Glu Asp Thr Glu
 260 265 270
 Asn Val Glu Ala Ala Ser Ser Gly Lys Val Thr Arg Ser Pro Ser Pro
 275 280 285
 Val Pro Gln Glu Glu His Ser Asp Pro Glu Met Thr Glu Glu Glu Lys
 290 295 300
 Glu Tyr Gln Met Met Leu Leu Thr Lys Met Leu Leu Thr Glu Ile Leu
 305 310 315 320
 Leu Asp Val Thr Asp Glu Glu Ile Tyr Tyr Val Ala Lys Asp Ala His
 325 330 335
 Arg Lys Ala Thr Lys Ala Pro Ala Lys Gln Leu Ala Gln Ser Ser Ala
 340 345 350
 Leu Ala Ser Leu Thr Gly Leu Gly Gly Leu Gly Gly Tyr Gly Ser Gly
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 Asp Ser Glu Asp Glu Arg Ser Asp Arg Gly Ser Glu Ser Ser Asp Thr

370 375 380
 Asp Asp Glu Glu Leu Arg His Arg Ile Arg Gln Lys Gln Glu Ala Phe
 385 390 395 400
 Trp Arg Lys Glu Lys Glu Gln Gln Leu Leu His Asp Lys Gln Met Glu
 405 410 415
 Glu Glu Lys Gln Gln Thr Glu Arg Val Thr Lys Glu Met Asn Glu Phe
 420 425 430
 Ile His Lys Glu Gln Asn Ser Leu Ser Leu Leu Glu Ala Arg Glu Ala
 435 440 445
 Asp Gly Asp Val Val Asn Glu Lys Lys Arg Thr Pro Asn Glu Thr Thr
 450 455 460
 Ser Val Leu Glu Pro Lys Lys Glu His Lys Glu Lys Glu Lys Gln Gly
 465 470 475 480
 Arg Ser Arg Ser Gly Ser Ser Ser Ser Gly Ser Ser Ser Asn Ser
 485 490 495
 Arg Thr Ser Ser Thr Ser Ser Thr Val Ser Ser Ser Tyr Ser Ser
 500 505 510
 Ser Ser Gly Ser Ser Arg Thr Ser Ser Arg Ser Ser Ser Pro Lys Arg
 515 520 525
 Lys Lys Arg His Ser Arg Ser Arg Ser Pro Thr Ile Lys Ala Arg Arg
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 Ser Arg Ser Arg Ser Tyr Ser Arg Arg Ile Lys Ile Glu Ser Asn Arg
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 595 600 605
 Arg Ser Arg Asp Arg Arg Lys Ile Asp Asp Gln Arg Gly Asn Leu Ser
 610 615 620
 Gly Asn Ser His Lys His Lys Gly Glu Ala Lys Glu Gln Glu Arg Lys
 625 630 635 640
 Lys Glu Arg Ser Arg Ser Ile Asp Lys Asp Arg Lys Lys Lys Asp Lys
 645 650 655
 Glu Arg Glu Arg Glu Gln Asp Lys Arg Lys Glu Lys Gln Lys Arg Glu
 660 665 670
 Glu Lys Asp Phe Lys Phe Ser Ser Gln Asp Asp Arg Leu Lys Arg Lys
 675 680 685
 Arg Glu Ser Glu Arg Thr Phe Ser Arg Ser Gly Ser Ile Ser Val Lys
 690 695 700
 Ile Ile Arg His Asp Ser Arg Gln Asp Ser Lys Lys Ser Thr Thr Lys
 705 710 715 720
 Asp Ser Lys Lys His Ser Gly Ser Asp Ser Ser Gly Arg Ser Ser
 725 730 735
 Glu Ser Pro Gly Ser Ser Lys Glu Lys Lys Ala Lys Lys Pro Lys His
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 Ser Arg Lys His Lys Ser Lys Ser Arg Ser Arg
 770 775

<210> 4405

<211> 918

<212> DNA

<213> Homo sapiens

<400> 4405

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 420
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 540
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<210> 4406

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4406

Leu Cys Leu Gln Gly Tyr Tyr Arg Gly Ala Val Gly Ala Leu Val
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 20 25 30
 Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
 35 40 45
 Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
 50 55 60
 Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
 65 70 75 80
 Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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<210> 4407
<211> 974
<212> DNA
<213> Homo sapiens
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400> 4407
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974

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<210> 4408
<211> 158
<212> PRT
<213> Homo sapiens
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<400> 4408

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 20 25 30
 Ala Tyr Asp Met Val Leu Val Glu Asp Glu Glu Val Asn Arg Met His
 35 40 45
 Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
 50 55 60
 Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
 65 70 75 80
 Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
 85 90 95
 Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
 100 105 110
 Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
 115 120 125
 Cys Ala Thr Asp Thr Gln Asn Val Lys Phe Val Phe Asp Ala Val Thr
 130 135 140
 Asp Ile Ile Ile Lys Glu Asn Leu Lys Asp Cys Gly Leu Phe
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<210> 4410
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 4410
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 35 40 45
 Pro Glu Pro Glu Glu Ala Gly Arg Arg Gly Gly Lys Arg Pro Lys Pro
 50 55 60
 Pro Pro Gly Val Ala Ser Ala Ser Ala Arg Gly Pro Pro Ala Thr Asp
 65 70 75 80
 Gly Leu Gly Ala Lys Val Lys Leu Glu Glu Lys Gln His His Pro Cys
 85 90 95
 Gln Lys Cys Pro Arg Val Phe Asn Asn Arg Trp Tyr Leu Glu Lys His
 100 105 110
 Met Asn Val Thr His Ser Arg Met Gln Ile Cys Asp Gln Cys Gly Lys
 115 120 125
 Arg Phe Leu Leu Glu Ser Glu Leu Leu Leu His Arg Gln Thr Asp Cys
 130 135 140
 Glu Arg Asn Ile Gln Cys Val Thr Cys Gly Lys Ala Phe Lys Lys Leu
 145 150 155 160
 Trp Ser Leu His Glu His Asn Lys Ile Val His Gly Tyr Ala Glu Lys
 165 170 175
 Lys Phe Ser Cys Glu Ile Cys Glu Lys Lys Phe Tyr Thr Met Ala His
 180 185 190
 Val Arg Lys His Met Val Ala His Thr Lys Asp Met Pro Phe Thr Cys
 195 200 205
 Glu Thr Cys Gly Lys Ser Phe Lys Arg Ser Met Ser Leu Lys Val His
 210 215 220
 Ser Leu Gln His Ser Gly Glu Lys Pro Phe Arg Cys Glu Asn Cys Asp
 225 230 235 240
 Glu Arg Phe Gln Tyr Lys Tyr Gln Leu Arg Ser His Met Ser Ile His
 245 250 255
 Ile Gly His Lys Gln Phe Met Cys Gln Trp Cys Gly Lys Asp Phe Asn
 260 265 270
 Met Lys Gln Tyr Phe Asp Glu His Met Lys Thr His Thr Gly Glu Lys
 275 280 285
 Pro Phe Ile Cys Glu Ile Cys Gly Lys Ser Phe Thr Ser Arg Pro Asn
 290 295 300
 Met Lys Arg His Arg Thr His Thr Gly Glu Lys Pro Tyr Pro Cys

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305                      310                      315                      320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
                      325                      330                      335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
                      340                      345                      350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
                      355                      360                      365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro His Leu
                      370                      375                      380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385                      390                      395                      400
Met Asn Ala Asn Asn
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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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<400> 4411
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120
caaaagagga gtttaggggtg gctatgggtgc aggggcagct gtatgcttca cctcaaatgt
180
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480
atcc
484

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<210> 4412
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 4412
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Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35         40         45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50         55         60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65              70              75              80
Ala Pro Ala Ser Arg Gln Arg Val Gly Phe Leu Gly Gln Pro Gln Ser
              85              90              95
Cys Gln Arg Gln His Val Ser Leu His Arg Ser His Gln Ala Pro Leu
              100              105              110
Asp

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<210> 4413

<211> 1097

<212> DNA

<213> Homo sapiens

<400> 4413

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1097

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<210> 4414

<211> 65
 <212> PRT
 <213> Homo sapiens

<400> 4414
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 35 40 45
 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
 50 55 60
 Pro
 65

<210> 4415
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4415
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 600
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 660
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<210> 4416
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4416

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 20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
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Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
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Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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360
gaaacagaaa tgtctgggga gttaactgat tctgacaagg aaaggatatca gcagttggag
420
gagggcatcag ccagcctccg tgagcggatc agacacctag atgacatggt gcattgccag
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660
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840
ctgtggcttc aaatcctttg ggaaggggtga ctgtgtgttc ccctacacac agtgaagcc
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<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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20 25 30
Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
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245 250 255
Ser Ser Lys Lys Thr Leu Thr
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<211> 369
<212> DNA
<213> Homo sapiens

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120

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<210> 4420

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

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		20						25					30		
Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35					40					45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
	50				55						60				
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
	65				70				75					80	
Trp	Pro	Gly	Arg	Ser	Gln	Thr	Pro	Gly	Pro	Met					
			85						90						

<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

<400> 4421

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 120
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 180
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 240
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 300
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 360
 aagcaaccac cagaggctga tacaatggc cgctgtatgt ttgctaaagt gacagtgaca
 420
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 480
 aatggcagtc taacagaaaa tcacctctgt accaacagcc ccttccctcc caagttagggt
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gagcccttgg gccagtgtat gggcagaaaa gcagatttgt gtccttcaga agggaaatgt
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 1200
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 1260
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<210> 4422

<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
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 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4423

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180
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240
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 2220
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 2460
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 2520
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 2580
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<210> 4424

<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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Gly	Thr	Ile	Gly	Glu	Asp	Asp	Glu	Val	Pro	Val	Glu	Pro	Glu	Ser	Asp
		20					25					30			
Ser	Gly	Asp	Glu	Glu	Glu	Gly	Pro	Ile	Val	Leu	Gly	Arg	Arg	Gln	
	35					40				45					
Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
	50				55				60						
Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
65				70				75					80		
Val	Met	Ser	Gln	Leu	Lys	Lys	Lys	Arg	Ala	Ala	Thr	Thr	Leu	Asp	Glu
			85					90					95		
Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
			100					105					110		
Lys	Ser	Gly	Lys	Leu	Glu	Lys	Glu	Lys	Glu	Ala	Lys	Glu	Gly	Ser	Glu

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115          120          125
Pro Arg Glu Gln Glu Asp Leu Gln Glu Asn Asp Glu Glu Gly Ser Glu
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Asp Glu Ala Ser Glu Thr Asp Tyr Ser Ser Ala Asp Glu Asn Ile Leu
145          150          155
Thr Lys Ala Asp Thr Leu Lys Val Lys Asp Arg Lys Lys Lys Lys Lys
165          170          175
Lys Gly Gln Glu Ala Gly Gly Phe Phe Glu Asp Ala Ser Gln Tyr Asp
180          185          190
Glu Asn Leu Ser Phe Gln Asp Met Asn Leu Ser Arg Pro Leu Leu Lys
195          200          205
Ala Ile Thr Ala Met Gly Phe Lys Gln Pro Thr Pro Ile Gln Lys Ala
210          215          220
Cys Ile Pro Val Gly Leu Leu Gly Lys Asp Ile Cys Ala Cys Ala Ala
225          230          235
Thr Gly Thr Gly Lys Thr Ala Ala Phe Ala Leu Pro Val Leu Glu Arg
245          250          255
Leu Ile Tyr Lys Pro Arg Gln Ala Pro Val Thr Arg Val Leu Val Leu
260          265          270
Val Pro Thr Arg Glu Leu Gly Ile Gln Val His Ser Val Thr Arg Gln
275          280          285
Leu Ala Gln Phe Cys Asn Ile Thr Thr Cys Leu Ala Val Gly Gly Leu
290          295          300
Asp Val Lys Ser Gln Glu Ala Ala Leu Arg Ala Ala Pro Asp Ile Leu
305          310          315
Ile Ala Thr Pro Gly Arg Leu Ile Asp His Leu His Asn Cys Pro Ser
325          330          335
Phe His Leu Ser Ser Ile Glu Val Leu Ile Leu Asp Glu Ala Asp Arg
340          345          350
Met Leu Asp Glu Tyr Phe Glu Glu Gln Met Lys Glu Ile Ile Arg Met
355          360          365
Cys Ser His His Arg Gln Thr Met Leu Phe Ser Ala Thr Met Thr Asp
370          375          380
Glu Val Lys Asp Leu Ala Ser Val Ser Leu Lys Asn Pro Val Arg Ile
385          390          395
Phe Val Asn Ser Asn Thr Asp Val Ala Pro Phe Leu Arg Gln Glu Phe
405          410          415
Ile Arg Ile Arg Pro Asn Arg Glu Gly Asp Arg Glu Ala Ile Val Ala
420          425          430
Ala Leu Leu Thr Arg Thr Phe Thr Asp His Val Met Leu Phe Thr Gln
435          440          445
Thr Lys Lys Gln Ala His Arg Met His Ile Leu Leu Gly Leu Met Gly
450          455          460
Leu Gln Val Gly Glu Leu His Gly Asn Leu Ser Gln Thr Gln Arg Leu
465          470          475
Glu Ala Leu Arg Arg Phe Lys Asp Glu Gln Ile Asp Ile Leu Val Ala
485          490          495
Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Glu Gly Val Lys Thr Val
500          505          510
Ile Asn Phe Thr Met Pro Asn Thr Ile Lys His Tyr Val His Arg Val
515          520          525
Gly Arg Thr Ala Arg Ala Gly Arg Ala Gly Arg Ser Val Ser Leu Val
530          535          540
Gly Glu Asp Glu Arg Lys Met Leu Lys Glu Ile Val Lys Ala Ala Lys

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				565					570					575	
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Leu	Glu	Ala	Glu	Glu	Lys	Glu	Met	Gln	Gln	Ser	Glu	Ala	Gln	Ile	Asn
		595					600					605			
Thr	Ala	Lys	Arg	Leu	Leu	Glu	Lys	Gly	Lys	Glu	Ala	Val	Val	Gln	Glu
	610					615					620				
Pro	Glu	Arg	Ser	Trp	Phe	Gln	Thr	Lys	Glu	Glu	Arg	Lys	Lys	Glu	Lys
625					630					635				640	
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Lys	Arg	Lys	Lys	Phe	Met	Lys	Asp	Ala	Lys	Lys	Lys	Gly	Glu	Met	Thr
			660					665					670		
Ala	Glu	Glu	Arg	Ser	Gln	Phe	Glu	Ile	Leu	Lys	Ala	Gln	Met	Phe	Ala
			675				680					685			
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Pro	Glu	Glu	Glu	Pro	Val	Arg	Gly	Pro	Ala	Lys	Lys	Gln	Lys	Gln	Gly
705				710						715				720	
Lys	Lys	Ser	Val	Phe	Asp	Glu	Glu	Leu	Thr	Asn	Thr	Ser	Lys	Lys	Ala
			725						730					735	
Leu	Lys	Gln	Tyr	Arg	Ala	Gly	Pro	Ser	Phe	Glu	Glu	Arg	Lys	Gln	Leu
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<210> 4425
<211> 5199
<212> DNA
<213> Homo sapiens
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180
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240
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480
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600

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<211> 1116

<212> PRT

<213> Homo sapiens

<400> 4426

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<212> DNA

<213> Homo sapiens

<400> 4427

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<211> 763

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<213> Homo sapiens

<400> 4428

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Arg	Ile	Leu	Arg	Ser	Arg	Gly	Tyr	Ile	Cys	Arg	Asn	Phe	Thr	Gly	Ser
		20					25						30		
Ser	Ala	Leu	Leu	Thr	Arg	Thr	His	Ile	Asn	Tyr	Gly	Val	Lys	Gly	Asp
		35					40					45			
Val	Ala	Val	Val	Arg	Ile	Asn	Ser	Pro	Asn	Ser	Lys	Val	Asn	Thr	Leu
		50				55					60				
Ser	Lys	Glu	Leu	His	Ser	Glu	Phe	Ser	Glu	Val	Met	Asn	Glu	Ile	Trp
65				70				75					80		
Ala	Ser	Asp	Gln	Ile	Arg	Ser	Ala	Val	Leu	Ile	Ser	Ser	Lys	Pro	Gly
			85					90					95		
Cys	Phe	Ile	Ala	Gly	Ala	Asp	Ile	Asn	Met	Leu	Ala	Ala	Cys	Lys	Thr
		100					105						110		
Leu	Gln	Glu	Val	Thr	Gln	Leu	Ser	Gln	Glu	Ala	Gln	Arg	Ile	Val	Glu
		115				120						125			
Lys	Leu	Glu	Lys	Ser	Thr	Lys	Pro	Ile	Val	Ala	Ala	Ile	Asn	Gly	Ser
		130				135					140				
Cys	Leu	Gly	Gly	Gly	Leu	Glu	Val	Ala	Ile	Ser	Cys	Gln	Tyr	Arg	Ile
145					150					155					160
Ala	Thr	Lys	Asp	Arg	Lys	Thr	Val	Leu	Gly	Thr	Pro	Glu	Val	Leu	Leu

165 170 175
 Gly Ala Leu Pro Gly Ala Gly Gly Thr Gln Arg Leu Pro Lys Met Val
 180 185 190
 Gly Val Pro Ala Ala Leu Asp Met Met Leu Thr Gly Arg Ser Ile Arg
 195 200 205
 Ala Asp Arg Ala Lys Lys Met Gly Leu Val Asp Gln Leu Val Glu Pro
 210 215 220
 Leu Gly Pro Gly Leu Lys Pro Pro Glu Glu Arg Thr Ile Glu Tyr Leu
 225 230 235 240
 Glu Glu Val Ala Ile Thr Phe Ala Lys Gly Leu Ala Asp Lys Lys Ile
 245 250 255
 Ser Pro Lys Arg Asp Lys Gly Leu Val Glu Lys Leu Thr Ala Tyr Ala
 260 265 270
 Met Thr Ile Pro Phe Val Arg Gln Gln Val Tyr Lys Lys Val Glu Glu
 275 280 285
 Lys Val Arg Lys Gln Thr Lys Gly Leu Tyr Pro Ala Pro Leu Lys Ile
 290 295 300
 Ile Asp Val Val Lys Thr Gly Ile Glu Gln Gly Ser Asp Ala Gly Tyr
 305 310 315 320
 Leu Cys Glu Ser Gln Lys Phe Gly Glu Leu Val Met Thr Lys Glu Ser
 325 330 335
 Lys Ala Leu Met Gly Leu Tyr His Gly Gln Val Leu Cys Lys Lys Asn
 340 345 350
 Lys Phe Gly Ala Pro Gln Lys Asp Val Lys His Leu Ala Ile Leu Gly
 355 360 365
 Ala Gly Leu Met Gly Ala Gly Ile Ala Gln Val Ser Val Asp Lys Gly
 370 375 380
 Leu Lys Thr Ile Leu Lys Asp Ala Thr Leu Thr Ala Leu Asp Arg Gly
 385 390 395 400
 Gln Gln Gln Val Phe Lys Gly Leu Asn Asp Lys Val Lys Lys Ala
 405 410 415
 Leu Thr Ser Phe Glu Arg Asp Ser Ile Phe Ser Asn Leu Thr Gly Gln
 420 425 430
 Leu Asp Tyr Gln Gly Phe Glu Lys Ala Asp Met Val Ile Glu Ala Val
 435 440 445
 Phe Glu Asp Leu Ser Leu Lys His Arg Val Leu Lys Glu Val Glu Ala
 450 455 460
 Val Ile Pro Asp His Cys Ile Phe Ala Ser Asn Thr Ser Ala Leu Pro
 465 470 475 480
 Ile Ser Glu Ile Ala Val Ser Lys Arg Pro Glu Lys Val Ile Gly
 485 490 495
 Met His Tyr Phe Ser Pro Val Asp Lys Met Gln Leu Leu Glu Ile Ile
 500 505 510
 Thr Thr Glu Lys Thr Ser Lys Asp Thr Ser Ala Ser Ala Val Ala Val
 515 520 525
 Gly Leu Lys Gln Gly Lys Val Ile Val Val Lys Asp Gly Pro Gly
 530 535 540
 Phe Tyr Thr Thr Arg Cys Leu Ala Pro Met Met Ser Glu Val Ile Arg
 545 550 555 560
 Ile Leu Gln Glu Gly Val Asp Pro Lys Lys Leu Asp Ser Leu Thr Thr
 565 570 575
 Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly
 580 585 590
 Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly

595										600					605							
Glu	Arg	Phe	Gly	Gly	Gly	Asn	Pro	Glu	Leu	Leu	Thr	Gln	Met	Val	Ser							
	610					615					620											
Lys	Gly	Phe	Leu	Gly	Arg	Lys	Ser	Gly	Lys	Gly	Phe	Tyr	Ile	Tyr	Gln							
625					630					635					640							
Glu	Gly	Val	Lys	Arg	Lys	Asp	Leu	Asn	Ser	Asp	Met	Asp	Ser	Ile	Leu							
			645						650						655							
Ala	Ser	Leu	Lys	Leu	Pro	Pro	Lys	Ser	Glu	Val	Ser	Ser	Asp	Glu	Asp							
			660					665					670									
Ile	Gln	Phe	Arg	Leu	Val	Thr	Arg	Phe	Val	Asn	Glu	Ala	Val	Met	Cys							
	675					680					685											
Leu	Gln	Glu	Gly	Ile	Leu	Ala	Thr	Pro	Ala	Glu	Gly	Asp	Ile	Gly	Ala							
	690					695					700											
Val	Phe	Gly	Leu	Gly	Phe	Pro	Pro	Cys	Leu	Gly	Gly	Pro	Phe	Arg	Phe							
705					710					715					720							
Val	Asp	Leu	Tyr	Gly	Ala	Gln	Lys	Ile	Val	Asp	Arg	Leu	Lys	Lys	Tyr							
			725					730							735							
Glu	Ala	Ala	Tyr	Gly	Lys	Gln	Phe	Thr	Pro	Cys	Gln	Leu	Leu	Ala	Asp							
			740					745					750									
His	Ala	Asn	Ser	Pro	Asn	Lys	Lys	Phe	Tyr	Gln												
	755							760														

<210> 4429

<211> 981

<212> DNA

<213> Homo sapiens

<400> 4429

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 120
 ctgcttgctc caactgggctc catctctccg ttaccgggtga ggcaggcaca gtgctgcagt
 180
 ggcagaatgg aagtaccag gctgacttgc tctcagccag acacgacctc ttctctgagg
 240
 aggggtgatgc caataaatgg aactccaata ggtaggcttc gctctgcctc tccacaagtg
 300
 aacacacgcc gtgagtcctc aaatcgccag gctccgcagc ctgcgagaaa gcctagtctc
 360
 cagacggtag gtatccatt catcccttgg catcggaac caaagggaaat cgagacagat
 420
 cccggtcgtg cactacattc ccaaaccttg gcacgcacgc gaaggcttgg ggcgccccgg
 480
 cgcgcccttc ctccgagggc tccaccaccc ggggactcac cactatgcga gctgaaccac
 540
 ctgggtgcga tgtgcagagg tagagcatcc gccagcgagg ttctgggagg cccggttacc
 600
 gcttcccggt tttatggtng accgcccggc gtctctggtt aaccattgcc atgggcatag
 660
 gtggagtcgg acgcagaccc tccgcccggc ggcgccacta ccacctgag gtgtccaaag
 720
 ccgccaagct catcaaccag gccctgtcca tgctgaggt cagcatcgcg cacaccaacg
 780

acacgccctt ctctctctct ctctctctct ctctctctct ccccccgtc tnnccctccc
 840
 gagttctccg gctctcgcgg cggcgggggc cggcgggcga acgaacgagc gagcgaacga
 900
 acgggcaacg gggccccgcc cgcgcacgcg ccgcgtcgcg gtgggggggt ggggtgcgcg
 960
 aggggaagcg cggcgggcgg c
 981

<210> 4430
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4430
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 Leu Arg Arg Val Met Pro Ile Asn Gly Thr Pro Ile Gly Arg Leu Arg
 20 25 30
 Ser Ala Leu Pro Gln Val Asn Thr Arg Arg Glu Ser Leu Asn Arg Gln
 35 40 45
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Ala Asp Ser Pro
 100 105 110
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
 115 120 125
 Ala Ser Glu Val Leu Gly Gly Pro Val Thr Ala Ser Arg Phe Tyr Gly
 130 135 140
 Xaa Pro Pro Pro Val Ser Trp
 145 150

<210> 4431
 <211> 507
 <212> DNA
 <213> Homo sapiens

<400> 4431
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 ctgggtgacc gacctatccc cgtcaccttc aagagggcc tgcagcgcct ctccttctgg
 120
 cagaaggtca ggctggcttg gggcctgtgc ttctgtcag accccatcag gtagggtcgc
 180
 ccccgaggacc ctggccggcc tgcagggtgg tctgtgggag gctccaggcc ctcctgtgca
 240
 ggtccaagcg cagccaatcc tcaactcaagg ccttccctgc cctttccttc cgccacaaat
 300
 cccaaacaaa cgtgctgtgg tccctgcccg gtgtccacag tgccagcccc accctcccg
 360

cccgcttgccc atcccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa
 420
 cgctgcaagc agaaggccta ctggagcaga tgatggccga gatgattggc gagttccca
 480
 acctgcaccg caccatcggt tttggag
 507

<210> 4432

<211> 57

<212> PRT

<213> Homo sapiens

<400> 4432

Gly	Gly	Glu	Phe	Arg	Glu	Ala	Phe	Lys	Glu	Ala	Ser	Lys	Val	Pro	Phe
1				5					10					15	
Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
			20					25					30		
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
		35					40					45			
Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Arg							
	50					55									

<210> 4433

<211> 447

<212> DNA

<213> Homo sapiens

<400> 4433

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 gtgaccaaca tcaccaccgt cagcctctgg gaagaattct cctccagcga cctgcagat
 120
 ctccgcttcc tggacatgag ccagaaccag ttccagtacc tgccagacgg cttcctgagg
 180
 aaaatgcctt cctctctcca cctgaacctc caccagaatt gcctgatgac gettcacatt
 240
 cgggagcacg agccccccgg agcgctcacc gagctggacc tgagccacaa ccagctgtcg
 300
 gagctgcacc tggtctccggg gctggccagc tgctctggga gectgcgctt gttcaacctg
 360
 agctccaacc agctctctgg cgctccccct ggctctctcg ccaatgctag gaacatcact
 420
 acacttgaca tgagccacaa tcagatc
 447

<210> 4434

<211> 149

<212> PRT

<213> Homo sapiens

<400> 4434

Xaa	Tyr	Asn	Thr	Ser	Ser	Pro	Arg	Glu	Met	Val	Ala	Gln	Phe	Leu	Leu
1				5				10					15		
Val	Asp	Gly	Asn	Val	Thr	Asn	Ile	Thr	Thr	Val	Ser	Leu	Trp	Glu	Glu

[illegible]

<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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60	caccctcttcg	tggtcaatct	gtggactacc	ttccaggatg	aggaggacat
120	gtggacctgc	tctctgggagg	cgacctgcgc	taccatctgc	agcagaatgt
180	gaggggactg	tgaactcta	catctgtgag	ctggcactgg	ccttggagta
240	taccacatca	tccacagaga	catcaagcca	gacaatatcc	tgctgggatg
300	gttcacatta	cagacttcaa	catagcgacg	gtagtgaagg	gagcagaaag
360	atggctggca	ccaagcccta	catggctcca	gaagtattcc	agggtgtacat
420	ccccgatact	cgtacctctg	cgactgggtg	tcctctggga	tcacagcccta
480	cggggcttga	ggcgcgtacga	aatccactcg	gtcacgcccc	tcgatgaaat
540	ttcaagggtg	agcgtgtcca	ctactctctc	acgtggtgca	aggggatggg
600	aggaagctcc	tgaccaagga	tcctgagagc	cgcggttcca	gccttcatga
660	gtgccttact	tggccgacat	gaactggggac	gcgggtgtta	agaaggcact
720	tttgtgccca	ataaaggggag	gttgaaactgc	gatcccatat	ttgagcttga
780	cta				
783					

<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
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 Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
 20 25 30
 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
 225 230 235 240
 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
 245 250 255
 Glu Glu Met Ile Leu
 260

<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 4437
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 gtgaagacca tccgggaggt gcagcctgac gtggtgtgctg tggagctctg ccaatatcgt
 120
 gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg agggccaggga gctcagcctg
 180
 gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg
 240

ctgtctgaagg tgtctgcaca catcaccgag cagctgggca tggccccagg tggcgagttc
 300
 agggaggcct tcaaggaggc cagcaaggtg cttttctgca agttccacct gggtagccga
 360
 cccatccccg tcacattcaa gagggccatc gcagcgctct ctttctggca gaaggtcagg
 420
 ctggcttggg gcctgtgctt cctgtcagac cccatcagca aggatgacgt ggaacgctgc
 480
 aagcagaagg acctactgga gcagatgatg gccgagatga ttggcgagtt cccagacctg
 540
 caccgcacca tcgtctcgga gcgcgacgtc tacctaacct acatgctgcg ccaggccgcg
 600
 cggcgcctcg agctgcctcg
 620

<210> 4438

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4438

Xaa	Cys	Arg	Val	Tyr	Val	Val	Gly	Thr	Ala	His	Phe	Ser	Asp	Asp	Ser
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Lys	Arg	Asp	Val	Val	Lys	Thr	Ile	Arg	Glu	Val	Gln	Pro	Asp	Val	Val
			20					25					30		
Val	Val	Glu	Leu	Cys	Gln	Tyr	Arg	Val	Ser	Met	Leu	Lys	Met	Asp	Glu
		35					40					45			
Ser	Thr	Leu	Leu	Arg	Glu	Ala	Gln	Glu	Leu	Ser	Leu	Glu	Lys	Leu	Gln
		50				55					60				
Gln	Ala	Val	Arg	Gln	Asn	Gly	Leu	Met	Ser	Gly	Leu	Met	Gln	Met	Leu
65					70					75				80	
Leu	Leu	Lys	Val	Ser	Ala	His	Ile	Thr	Glu	Gln	Leu	Gly	Met	Ala	Pro
			85						90					95	
Gly	Gly	Glu	Phe	Arg	Glu	Ala	Phe	Lys	Glu	Ala	Ser	Lys	Val	Pro	Phe
			100					105					110		
Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
		115				120						125			
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
		130				135					140				
Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Ser	Lys	Asp	Asp	Val	Glu	Arg	Cys
145				150						155				160	
Lys	Gln	Lys	Asp	Leu	Leu	Glu	Gln	Met	Met	Ala	Glu	Met	Ile	Gly	Glu
			165						170					175	
Phe	Pro	Asp	Leu	His	Arg	Thr	Ile	Val	Ser	Glu	Arg	Asp	Val	Tyr	Leu
			180					185					190		
Thr	Tyr	Met	Leu	Arg	Gln	Ala	Ala	Arg	Arg	Leu	Glu	Leu	Pro		
		195				200						205			

<210> 4439

<211> 2121

<212> DNA

<213> Homo sapiens

<400> 4439

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120
tctaaaaatta actttttattg ttagagacac atcttttagaa aagtttgtaa atatcaacat
180
ttaccatctt attttttcct ttgagaccaa gcatcacaga ccaaaagcca caaagtttac
240
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt
300
ctttataaac tattttgtat atcatattca cttcctaagt cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcatttag tcagaagatt taaaaaatat gtaaaatgtt
420
ttcacagtac ttgggattta taaaagaccc cattatttta acttttgtgc aacctgtttg
480
aaatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact gagttgctga
540
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt
600
gtaataagtg caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat
660
atccaggctt ggaatatatt tgaacactca gatataaaaa ttcagtaaac aatttatgca
720
tggtattttc tctccctgtc ctccctctcc ctccctccct cccctatcta tttggttaaa
780
aaaaaaaaag ttcaacttcg atttaagtc tagggcctga caaagtgacc ctggataaat
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900
gcatcaatcc tttcctgcag ggacggaaga gttttcaaat ccttgctgaa agcattttgt
960
tctcctctgt aacagcacag ggcagtgaat tgtttggagt ctttgtaacc agtctgttca
1020
gtcctggtc ctttcagtc cgggtccctt tccagcctct ggagtcctga cagaagagaa
1080
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1140
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1200
gaatattttc gcagtttcag aaactggaaa agcttgtctt ttgtcctctt cttcaaggcc
1260
atcagggcac gcgttttctc ctccacatct tgatctatgg caaaaatgat cttggctctc
1320
tcctctgctt tcttgtctcc agagtttctg aagagccttt ctagtgatcc ttggtctgtg
1380
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1440
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1500
ttcatcgatg tggggatctt ccggaattca gctccaggc ttccatgat tggagctgat
1560
tcactctgaag agaaaatttt gcgtagaatt ggaagattcg gttatgggta tggcccttat
1620

cagccagttc cagaacaacc actataccca caaccatacc aaccacaata ccaacaatat
 1680
 acccttttaaat atcatcagta actgcaggac atgattatgg aggtttgact ggcaaatagc
 1740
 acttctacat ccatattctc atctttcata ccatatcaca ctactaccac tttttgaaga
 1800
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 1860
 caggatactt ccttcctaa ttatcatttg attagatact tgcaatttaa actgttaagc
 1920
 tgtgttcact gctgtttctg aataatagaa attcattcct ctccaaaagc aataaatttc
 1980
 aagcacattt tccaatacct gtggcatcac actactacca ctttttgaag aatcatcaaa
 2040
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 2100
 cttttcaatt gtcacttgat g
 2121

<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
			20					25					30		
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
		35					40					45			
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
		50				55				60					
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
65					70					75					80
Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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 120
 gaaaggggga gccgaacgtg aagggcgaag ggcggggcgg ggcaggagag tcgggggata
 180
 gagcaggcag gtgttaatgg catgggaagg aagagtaaga agtggggcaa gaaggtgtcg
 240
 cggtacgagg ggaaggtgag actcaagaag gtgccggcta agaagctggt gccggcgtgg
 300

aaggagaagg tgctgtgggc cctgctggca gtgctcctgg cgtcgtggag gctgtggggc
360
atcaaggatt tccaggaatg cacctggcag gttgtcctga acgagtttaa gagggtaggc
420
gagagtgggt tgagcgacag cttctttgag caagagcccg tggacacagt gacgagcttg
480
tttcacatgc tgggtggactc acccatcgac ccgagcgaga aatacctggg cttcccttac
540
tacctgaaga tcaactactc ctgcgaggaa aagccctctg aggacctggt ggcgatgggc
600
cacctgacgg ggctaagacc cctgggtgctg gtcaccttcc agtccccagt caactctac
660
cgctggaaga tagagcagct gcagatccag atggaggctg cccctctccg cagcaaagg
720
gggcttgggg gaggcgggag ggcacgcaac ctggcaggga tgaatatcaa cggtctcctg
780
aagagagacc gggacaataa catccaattc actgtgggag aggagctctt caactgatg
840
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 2055

<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

Met	Gly	Arg	Lys	Ser	Lys	Lys	Trp	Gly	Lys	Lys	Val	Ser	Arg	Tyr	Glu
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			20					25					30		
Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser
			35				40					45			
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val
			50			55					60				
Val	Leu	Asn	Glu	Phe	Lys	Arg	Val	Gly	Glu	Ser	Gly	Val	Ser	Asp	Ser
65					70					75				80	
Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met
			85					90						95	
Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro
			100				105						110		
Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp
			115				120					125			
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val
			130			135					140				
Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu
145					150					155				160	
Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly
			165					170						175	
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe
			180				185					190			
Leu	Lys	Arg	Asp	Arg	Asp	Asn	Asn	Ile	Gln	Phe	Thr	Val	Gly	Glu	Glu
			195			200						205			
Leu	Phe	Asn	Leu	Met	Pro	Gln	Tyr	Phe	Val	Gly	Val	Ser	Ser	Arg	Pro
			210			215					220				
Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile
225					230					235				240	
Pro	Asn	Glu	Lys	Tyr	Val	Leu	Met	Thr	Asp	Thr	Ser	Phe	Lys	Asp	Phe
			245					250						255	
Ser	Leu	Val	Glu	Val	Asn	Gly	Val	Gly	Gln	Met	Leu	Ser	Ile	Asp	Ser
			260				265						270		
Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr
			275				280					285			
Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn
			290			295					300				
Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg
305					310					315				320	
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Gly	Pro	Thr	Pro	Gly	Glu

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
 485 490 495
 Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
 500 505 510
 Arg Cys Thr Ser Ala
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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 120
 gggattgact aactcatcaa cgtggagttt aatgcccaac caagtgcaga ccacgtctct
 180
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 240
 ccccaaggct ggtctccagg aggtaaggcc cgccctgcag gcaacaccgg tgettgggct
 300
 cctgctgagc agttctttcc tgcgagtaac agaaccaggg agggagggtgg gctgtggcct
 360
 cccctgcccc tacatgcac tectgcagct ccaccatgc tggactcatc agcagcagag
 420
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 480
 gtggaagggg gacctgaggg ctccacctcg agccaggaaa tggaggaccg cgggacgatg
 540
 ccctgcagac tgctctgaag agaaggaggg accttctgca gagactccgg gaacaacac
 600
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 660

cagccctgcc cccagagctg ccccccacgc gt
692

<210> 4444

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4444

Met	Ser	Val	Cys	Leu	Leu	Val	Gly	Leu	Thr	Asn	Ser	Ser	Thr	Trp	Ser
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Leu	Met	Pro	Asn	Gln	Val	Gln	Thr	Thr	Leu	Leu	Phe	Cys	Val	Thr	Leu
			20					25					30		
Cys	Glu	Ala	Ser	Cys	Lys	Leu	Asp	Ser	Leu	Pro	Ser	Ala	Pro	Ser	Pro
			35				40					45			
Lys	Ala	Gly	Leu	Gln	Glu	Val	Arg	Pro	Ala	Leu	Gln	Ala	Thr	Pro	Val
			50				55				60				
Leu	Gly	Leu	Leu	Leu	Ser	Ser	Ser	Phe	Leu	Arg	Val	Thr	Glu	Pro	Gly
					70					75				80	
Arg	Glu	Val	Gly	Cys	Gly	Leu	Pro	Cys	Pro	Tyr	Ser	His	Leu	Leu	Gln
				85					90					95	
Leu	Pro	Pro	Cys	Trp	Thr	His	Gln	Gln	Gln	Ser	Lys				
			100						105						

<210> 4445

<211> 901

<212> DNA

<213> Homo sapiens

<400> 4445

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120
atccagctgt ccccaggagt gccagacccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt ccctcatcag ccgtaaatga tgatttactg ctgttaccat catcactgcc
240
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300
gatgatactc aggtacacgg gtgctcaaca gattgcttcc tcctatcctc agacggtctt
360
tgcatgcacg cagccattgg cactcccatt gtgtggaagg aaaccagccc agggtcacac
420
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480
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540
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660
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720

atggcaaac cccatctcca caaaaattgg ataattgat aattatcatt attgggtttc
 780
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 900
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 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
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 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 gtgggtgggt atggccgcct cggacagtc cttgtgtccc gcctctctggc tcagggatca
 180
 gaactggggc tagaacttgt ttttgtgtgg aaccgtgacc ctggacgaat ggcagggagt
 240
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 300
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 360
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 420

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540
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600
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840
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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20 25 30
Asp Arg Gly Pro Trp Arg Val Gly Val Val Gly Tyr Gly Arg Leu Gly
35 40 45
Gln Ser Leu Val Ser Arg Leu Leu Ala Gln Gly Ser Glu Leu Gly Leu
50 55 60
Glu Leu Val Phe Val Trp Asn Arg Asp Pro Gly Arg Met Ala Gly Ser
65 70 75 80
Val Pro Pro Ala Leu Gln Leu Glu Asp Leu Thr Thr Leu Glu Glu Arg
85 90 95
His Pro Asp Leu Val Val Glu Val Ala His Pro Lys Ile Ile His Glu
100 105 110
Ser Gly Val Gln Ile Leu Arg His Ala Asn Leu Leu Ser Leu Arg Val
115 120 125
Thr Met Ala Thr His Pro Asp Gly Phe Arg Leu Glu Gly Pro Leu Ala
130 135 140
Ala Ala His Ser Pro Gly Pro Cys Thr Val Leu Tyr Glu Gly Pro Val
145 150 155 160
Arg Gly Leu Cys Pro Phe Ala Pro Arg Asn Ser Asn Thr Met Ala Ala
165 170 175
Ala Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val
180 185 190
Leu Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu
195 200 205
Leu Ser Gly Pro Arg Gly Pro Thr Gly Arg Ser Phe Ala Val His Thr
210 215 220
Arg Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr

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225		230		235		240									
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro	Ser
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Arg	Pro	Gly	Ile	His	Leu	Cys									
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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1020
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1080
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1140
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1200
tcagaggaa cagaggagaa acaagagact gagaatgagg aagcctcagt gattgaaacc
1260

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aactccacag ttcctggagc tgattctatt cctgatcctg aactaagtgg agaattcttg
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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 120
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 180
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 240
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 300

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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
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Gln Leu Val Lys Glu Arg Glu Thr Leu Ala Leu Glu Glu Glu Gln
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Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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180

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 480
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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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 20 25 30
 Gln Lys Trp Ala Ala Gly Ala Lys Ala Tyr Leu Asn Lys Gly Ser Lys
 35 40 45
 Gly Pro Leu Ser Leu Gly Ser Ser Ile Gln Pro Leu Ser Gln Gln Arg
 50 55 60
 Gln Asp Cys Gly Pro Leu Cys Phe Leu Asn Arg Ala Gln Gly Ser Gln
 65 70 75 80
 Gly Met Pro Ser Leu Gln His Ser Thr Leu Trp Ser Gln Trp Ser Arg
 85 90 95
 Arg Ser Ser Leu Lys Tyr Tyr Tyr Arg Gly Glu Arg Pro Ile Leu Ala
 100 105 110
 Met Leu Leu Tyr Leu Pro Arg Pro Lys Thr Val Leu Cys Ser Phe Ser
 115 120 125
 Cys Ser Glu Ile Arg Ser Gln Asn Ser Arg Arg His Ser Phe Gly Lys
 130 135 140
 Lys Gly His Ala Phe Val Leu Tyr Leu Ile Leu Val Ser Glu Ala Leu
 145 150 155 160
 Ile Pro Val Asp Cys Gly Leu Arg Trp Ser Pro Pro Gln Asp Pro Gln
 165 170 175
 Leu Gln Arg Gln Arg Arg Met Lys Glu Glu Gln Pro Pro Gln Asp Leu
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 Leu His Trp Glu Pro His Pro Thr Phe Ser Val Pro Phe Thr Arg
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<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 780
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 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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		20						25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
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Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50					55				60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
	65			70				75					80		
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
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Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

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Asn  Ile  Glu  Glu  Cys  Thr  Ile  Leu  Arg  Gly  Pro  Asp  Gly  Asn  Ser  Lys
          130          135          140
Gly  Cys  Ala  Phe  Val  Lys  Tyr  Ser  Ser  His  Ala  Glu  Ala  Gln  Ala  Ala
145          150          155          160
Ile  Asn  Ala  Leu  His  Gly  Ser  Gln  Thr  Met  Pro  Gly  Ala  Ser  Ser  Ser
          165          170          175
Leu  Val  Val  Lys  Phe  Ala  Asp  Thr  Asp  Lys  Glu  Arg  Thr  Met  Arg  Arg
          180          185          190
Met  Gln  Gln  Met  Ala  Gly  Gln  Met  Gly  Met  Phe  Asn  Pro  Met  Ala  Ile
          195          200          205
Pro  Phe  Gly  Ala  Tyr  Gly  Ala  Tyr  Ala  Gln  Ala  Leu  Met  Gln  Gln  Gln
210          215          220
Ala  Ala  Leu  Met  Ala  Ser  Val  Ala  Gln  Gly  Gly  Tyr  Leu  Asn  Pro  Met
225          230          235          240
Ala  Ala  Phe  Ala  Ala  Gln  Met  Gln  Gln  Met  Ala  Ala  Leu  Asn  Met
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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240
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360
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420
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480
tactacctgc tgtgggtgca ctccgtgtac gacaaggatt actactctt ctggcgagc
540
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780

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 1080
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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			20					25				30			
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
			35				40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50					55				60					
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65					70					75				80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85						90					95	
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
		100						105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115					120					125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
		130				135					140				
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145					150					155				160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
				165					170					175	
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

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Trp Gly Ala Gly Thr Pro Ser Glu Gly Arg Gly Leu Ser Val Asp Val
      195      200      205
Gly Val Val Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln
      210      215      220
Glu Val Leu Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys
      225      230      235      240
Asp Lys Lys Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met
      245      250      255
Glu Thr Ser Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly
      260      265      270
Lys Arg Leu Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu
      275      280      285
Lys Asn Lys His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro
      290      295      300
Cys Phe Leu Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly
      305      310      315      320
Gly Pro Thr Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr
      325      330      335
Arg Phe Asn Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr
      340      345      350
Arg Thr Thr Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His
      355      360      365
Glu Ser Pro Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr
      370      375      380
Asp Asn Val Pro Gln Gly Ile Phe Ala Pro Glu Phe Phe Lys Val
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Leu Val Ser Asn Arg
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<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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120
gccgattgat ctaagaaact ttattgctca gaaccttccc tcctgtggca atggaaagag
180
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240
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360
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420
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480
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540

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 720
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 780
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 1020
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 1114

<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25				30			
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35				40					45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50				55						60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65				70				75					80		
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85				90					95			
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100				105					110			
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

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 360
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 488

<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35				40					45				
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
50					55				60						
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65				70					75					80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
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<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 120
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 180
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 2662

<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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Glu	Leu	Arg	Arg	Glu	Arg	Arg	Met	Val	Cys	Val	Glu	Tyr	Pro	Gly	Val
		20						25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
		35					40						45		
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
		50					55				60				
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70					75				80	
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85					90						95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
			100					105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
		115					120					125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
		130				135					140				
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145					150					155				160	
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
				165					170					175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
			180					185					190		
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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      195              200              205
Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu
  210              215              220
Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Glu Thr Trp Arg Arg
  225              230              235              240
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
      245              250              255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
      260              265              270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
      275              280              285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
      290              295              300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
  305              310              315              320
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
      325              330              335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
      340              345              350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
      355              360              365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
  370              375              380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
  385              390              395              400
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
      405              410              415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
      420              425              430
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
      435              440              445
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
      450              455              460
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
  465              470              475              480
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
      485              490              495
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu
      500              505              510
Thr Glu Ile Leu Asp Tyr Val
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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120
ngcgccgtgg ggctagtggg cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

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caggccggct cgcccgccg ccggccaccg cgggcccagc agccacagca gccateccaa
 240
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 300
 ggagctcgat ggaagcctct cagtgtctcc acgccacacn agctctacct gctctgctgc
 360
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 420
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 480
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 540
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 660
 aaggctcaga tttgctcatt agtggagtgt ctggccacca ctctgaagca agctcatgccc
 720
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 780
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 840
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 900
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 960
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 1020
 tacgtgaaga gcatgaaggg tctcgcggga atccgggacg ccatgtggga gttacttacc
 1080
 agtgagtcca ccaatcacag ctgggatgtg ctatgtaccc gcnttctgga gaagccgctc
 1140
 ttgttctggg aagatatgat gcagcaactg ttccttgacc gattacagac tctgacaaaa
 1200
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 1260
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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

Gly Leu Glu Arg Gln Val Arg Ala Glu Ile Glu His Lys Lys Glu Glu
 1 5 10 15
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 20 25 30
 Asp Thr Ile Gly Gln Met Arg Arg Xaa Ala Val Gly Leu Val Asp Ala
 35 40 45
 Val Lys Ala Thr Asp Gln Tyr Cys Ala Arg Leu Arg Gln Ala Gly Ser
 50 55 60
 Ala Ala Pro Arg Pro Pro Arg Ala Gln Gln Pro Gln Gln Pro Ser Gln

65 70 75
Glu Lys Phe Tyr Ser Met Ala Ala Arg Ser Ser Tyr Ser
 85 90

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<210> 4467
<211> 1142
<212> DNA
<213> Homo sapiens
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400> 4467
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120
tatgacagca tcaaaggcca cgtgcgggtc attgactatg aatatgtctg ctacaactac
180
caagcttttg acattggcaa ccatttcaat gagtgttcag gcgtgaatga ggtggattac
240
tgctgttacc cggcgcggga gaccagctg cagtggctgc actactacct gcaggcaca
300
aaggggatgg ccgtgacccc cagggaggtg caaaggctct acgtgcaagt caacaagttt
360
gccctggcgt ctactctctt ctgggctctc tgggccctca tccagaacca gtactccacc
420
atcgactttg atttctctag gtacgcagtg atccgattca accagtactt caagtgtaag
480
ctcaagcgt cagccttgga gatgccaaag tgaccagcca ccccatccct ccctaccca
540
tctgtctggc cagacctgtt ctccagagct caattctgca ctctggggtc cacacccttg
600
gacagggttg gagaggggac acatgggtgt ccagggagaa ggctctgttc ctgcgcgcag
660
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720
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960
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1020
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1080
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1140
gt
1142

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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
 1 5 10 15
 Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
 165 170

<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 120
 ggcctgggat ggccaagaca gttggaaagc aggagatgga caacttgaag gcattgcaca
 180
 gtgctttaga ggctcctctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
 240
 tggaaatagg tagctgtgtc tgagactcct ggagaacaat taatatgagg gccaggcaga
 300
 tcacaatttc agggaaatgg ctaccctgtg aggagagaaa gccacccaat gatgctgata
 360
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 409

<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

1	5	10	15
Ala Ser Trp Val Leu Asn Val Ala Phe Cys Pro Asp Asp Thr His Phe			
	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
	35	40	45
Glu Ser Arg Arg Trp Thr Thr			
50	55		

<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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 120
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 180
 ctaatggcgc ggtctggcca cggtcccggt gtccctgggc agccctccga gggggcggga
 240
 cagggcgcac tataaatgag cggctgcgca cgagggggca ctgcaacgcg gaggagcagg
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 360
 ggactttcgc cgcgggacg cctctttgac cagcgcttcg gcgaggggct gctggaggcc
 420
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 480
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 660
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 720
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 780
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 840
 ccgatctgac tccgccacgc cagatgtccc gagtgcgcca aggactgtcc tctcaccac
 900
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 960
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 1020
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 aagacatccg ggtactacat ttccatccct tccctatctt gacaccaa atgtggtgag
 1200

acagccctcc cccaaccca gccagtcag gcacaatccc cccaccccc aaacgtcctg
 1260
 gactgcacag acctcccact ccagaccatc caggcctggt tcccaagacc cgatccttcc
 1320
 cctgcaacca gacagtctac aactgcccc tccagcccat tttctgccgt gaaacccca
 1380
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 1440
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 1620
 ttctcttca agaccaact gagcaccgc tctgattccc cacagccttt ctccctgcca
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<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

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 Ala Pro Leu Pro Gly Leu Ser Ala Pro Gly Arg Leu Phe Asp Gln Arg
 20 25 30
 Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Ala Leu Cys Pro Thr
 35 40 45
 Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
 50 55 60
 Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
 65 70 75 80
 Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
 85 90 95
 Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
 100 105 110
 Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
 115 120 125
 Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
 130 135 140
 Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Ala Ala Ala Lys
 145 150 155 160

<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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 120
 ttggttaagg aatgaccaa ccagtacggt attctcttca aacaagagca agcccatgat
 180
 gatgccattt ggtcagttgc ttgggggaca aacaagaagg aaaactctga gacagtggtc
 240
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 420
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 480
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 540
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 600
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 660
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 720
 accttttccc cggactccca gctccttgtc actgcttcag atgatggcta catcaagatc
 780
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 840
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 900
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 960
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 1020
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 1080
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 agcatttatt gtagcaaaga cttaaatttt gtagatacaa tatgaatctt ttcattgttt
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 1255

<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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1					5				10					15	
Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys


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          35          40          45
Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
  50          55          60
Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
  65          70          75          80
Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
          85          90          95
Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
          100          105          110
Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
          115          120          125
Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
          130          135          140
Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
          145          150          155          160
Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
          165          170          175
Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
          180          185          190
Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
          195          200          205
Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
          210          215          220
Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
          225          230          235          240
Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
          245          250          255
Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
          260          265          270
His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
          275          280          285
Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
          290          295          300
Ile
305

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<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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240
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300
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360

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ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg
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<210> 4476

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4476

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Gly	Leu	His	Pro	Gly	Gly	Gly	Leu	Arg	Ala	Ala	Gly	Arg	Gln	Gln	Met
			20					25					30		
Ser	Arg	Arg	Ser	Ser	Ser	Ser	Gln	Pro	Leu	Pro	Gln	Ser	Ala	Arg	Thr
		35				40						45			
Gly	His	Thr	Glu	Gly	Ser	Val	Ala	Leu	His	Gly	Ser	Pro	Ala	Ser	Arg
	50				55					60					
Gln	Thr	Ser	Gln	Arg	Trp	Thr	Val	Cys	Gln	Gly	Trp	Asp	Trp	Asn	Ser
65				70						75				80	
Arg	Arg	Ser	Leu	Asp	Thr	Ser	Gly	Ile	Arg	Glu	Thr	Ser	Leu	Gly	Arg
			85					90						95	
Tyr	Pro	Leu	Pro	Ser	Ser	Arg	Val	His	Ala						
			100					105							

<210> 4477

<211> 1153

<212> DNA

<213> Homo sapiens

<400> 4477

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 120
 taggccaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
 180
 aagcaccaag ttctcacaag ttattttatg tgactttgca ggaactgagg cattatatct
 240
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 300
 cacaccatga gagtgtctgat gggggcgcaa tagtcttgaa aatgtataaa gtgtccagga
 360
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 420
 ctatctagga catcagcatt ctacacaag cctaattggc tatctgagta agcaggggctt
 480
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 540
 tctccctctt tccacatgtc ttttctgta ggaacacttt ctccatttat tctgcctat
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 ccaattcttc cctatatctc ctggaccagc taaagtcagg tgtttccaga gacttttgaa
 660

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agtcaactta cactttttcc ttcttcattc acaaagctct tcttccctgg gccctggat
720
gtatgccttt ctctcctact gtctaatagc acctcgtaaa ttgtcaatga acttttctaa
780
gggggtattct tgaattccca actagattgt gagcttctgg aagacaaggc tatgtctttg
840
attgttgtct cccctaccac agcccgatgc tttagttaca gaaaataata aatatttact
900
gattgattga ctttcctctt gtccactagc tttaggtttg ggggcccaaat tctaccctgg
960
attttgaaaa attcaaaactg tgaacaccac aatgttatag agcatatgag gtagtagcca
1020
gcatgaagga tgttttcttc ctgagaaaac gtgtcaaggg ctggaggaag agggcaaaat
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ttttcttgta gga
1153

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<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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Met Trp Lys Arg Gly Glu Val Gly Lys Ile Lys Glu Cys Leu Glu Gly
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Lys Thr Glu Tyr Gln Glu Ser Glu Phe Leu Ser Pro Ala Tyr Ser Asp
20 25 30
Lys Pro Leu Gly Leu Cys Glu Asn Ala Asp Val Leu Asp Arg Arg Leu
35 40 45
Trp Glu Gly Asn Met Lys Glu Glu Asn Asn Asn Glu Ser Lys Ser Thr
50 55 60
Ser Ile Pro Gly His Phe Ile His Phe Gln Asp Tyr Cys Ala Pro Ile
65 70 75 80
Ser Thr Leu Met Val Cys Val Asp Thr Ala Gln Gly Cys Ile Ser Leu
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Arg Cys His Thr Phe Pro Leu Val Ser Ser Asp Ile Met Pro Gln Phe
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Leu Gln Ser His Ile Lys
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<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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120
ggcgggccac gcgcagcaca gggagagatg agcagcacca gcagtaagag ggctccgacc
180

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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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 Glu Met Ser Ser Thr Ser Ser Lys Arg Ala Pro Thr Thr Ala Thr Gln
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 Arg Leu Lys Gln Asp Tyr Leu Arg Ile Lys Lys Asp Pro Val Pro Tyr
 65 70 75 80
 Ile Cys Ala Glu Pro Leu Pro Ser Asn Ile Leu Trp His Tyr Val
 85 90 95
 Val Arg Gly Pro Glu Met Thr Pro Tyr Glu Gly Tyr Tyr His Gly
 100 105 110
 Lys Leu Ile Phe Pro Arg Glu Phe Pro Phe Lys Pro Pro Ser Ile Tyr
 115 120 125
 Met Ile Thr Pro Asn Gly Arg Phe Lys Cys Asn Thr Arg Leu Cys Leu
 130 135 140
 Ser Ile Thr Asp Phe His Pro Asp Thr Trp Asn Pro Ala Trp Ser Val
 145 150 155 160
 Ser Thr Ile Leu Thr Gly Leu Leu Ser Phe Met Val Glu Lys Gly Pro
 165 170 175
 Thr Leu Gly Ser Ile Glu Thr Ser Asp Phe Thr Lys Arg Gln Leu Ala
 180 185 190
 Val Gln Ser Leu Ala Phe Asn Leu Lys Asp Lys Val Phe Cys Glu Leu
 195 200 205
 Phe Pro Glu Val Val Glu Glu Ile Lys Gln Lys Gln Lys Ala Gln Asp
 210 215 220
 Glu Leu Ser Ser Arg Pro Gln Thr Leu Pro Leu Pro Asp Val Val Pro
 225 230 235 240
 Asp Gly Glu Thr His Leu Val Gln Asn Gly Ile Gln Leu Leu Asn Gly
 245 250 255
 His Ala Pro Gly Ala Val Pro Asn Leu Ala Gly Leu Gln Gln Ala Asn
 260 265 270
 Arg His His Gly Leu Leu Gly Gly Ala Leu Ala Asn Leu Phe Val Ile

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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe	35	40	45	
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys	50	55	60	
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp	65	70	75	80
Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys	85	90	95	
Leu	Lys	Thr	Asp	Val	Leu	Val	Leu	Ser	Cys	Asp	Leu	Ile	Thr	Asp	Val	100	105	110	
Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu	115	120	125	
Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly	130	135	140	
Gln	Lys	Gly	Lys	Lys	Lys	Ala	Val	Glu	Gln	Arg	Asp	Phe	Ile	Gly	Val	145	150	155	160
Asp	Ser	Thr	Gly	Lys	Arg	Leu	Leu	Phe	Met	Ala	Asn	Glu	Ala	Asp	Leu	165	170	175	
Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg	180	185	190	
Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys	195	200	205	
Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile	210	215	220	
Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala	225	230	235	240
Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys	245	250	255	
Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr	260	265	270	
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp	275	280	285	
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile	290	295	300	
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met	305	310	315	320
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu				


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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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Leu Met Glu Ile
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<210> 4485

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4485

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<210> 4486

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4486

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Pro Phe Val Phe Arg Pro Thr Gly Leu Ile Ala Pro Cys Ala Cys Pro
  20           25           30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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          35              40              45
Pro  Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
      50              55              60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65              70              75              80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
      85              90              95
Pro Met Pro Asn
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<210> 4487
 <211> 387
 <212> DNA
 <213> Homo sapiens

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<400> 4487
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180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttggtgc taataaccag
300
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387

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<210> 4488
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
100         105         110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
115         120         125
Gly

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<210> 4489

<211> 2390

<212> DNA

<213> Homo sapiens

<400> 4489

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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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		20						25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35					40					45			
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50				55						60				
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65			70						75					80	
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85					90					95		
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

	100		105		110
Cys Val Thr	Asn Ala Met	Arg Glu Asp	Leu Ala Asp	Asn Trp His	Ile
	115		120		125
Arg Ala Val	Thr Val Tyr	Asp Lys Pro	Ala Ser Phe	Lys Glu Thr	
	130		135		140
Pro Leu Asp	Leu Gln His	Arg Leu Phe	Met Lys Leu	Gly Ser Met	His
	145		150		155
Ser Pro Phe	Arg Ala Arg	Ser Glu Pro	Glu Asp Pro	Val Thr Glu	Arg
	165		170		175
Ser Ala Phe	Thr Glu Arg	Asp Ala Gly	Ser Gly Leu	Val Thr Arg	Leu
	180		185		190
Arg Glu Arg	Pro Ala Leu	Leu Val Ser	Ser Thr Ser	Trp Thr Glu	Asp
	195		200		205
Glu Asp Phe	Ser Ile Leu	Leu Ala Ala	Leu Glu Lys	Phe Glu Gln	Leu
	210		215		220
Thr Leu Asp	Gly His Asn	Leu Pro Ser	Leu Val Cys	Val Ile Thr	Gly
	225		230		235
Lys Gly Pro	Leu Arg Glu	Tyr Tyr Ser	Arg Leu Ile	His Gln Lys	His
	245		250		255
Phe Gln His	Ile Gln Val	Cys Thr Pro	Trp Leu Glu	Ala Glu Asp	Tyr
	260		265		270
Pro Leu Leu	Leu Gly Ser	Ala Asp Leu	Gly Val Cys	Leu His Thr	Ser
	275		280		285
Ser Ser Gly	Leu Asp Leu	Pro Met Lys	Val Val Asp	Met Phe Gly	Cys
	290		295		300
Cys Leu Pro	Val Cys Ala	Val Asn Phe	Lys Cys Leu	His Glu Leu	Val
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